

The power of silent voices: Employee satisfaction and acquirer stock performance^a

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Abstract

Employees are the most valuable asset of a firm. To test whether this statement is more than rhetoric, we assemble a novel social media dataset that captures the level of employee satisfaction in S&P 500 firms, and explore its relationship with stock returns in the aftermath of mergers and acquisitions. Our results show that employee satisfaction has a strong long-run positive effect on acquirers' stock performance even though its short-run effect on cumulative abnormal returns is largely insignificant. This is in contrast with previous studies wherein the external evaluations of corporate social responsibility have had significant short-run but weaker long-run effects on equity prices. Our results suggest that the stock market is unable to fully incorporate the value of employee satisfaction.

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1. Introduction

“Mergers, like marriages, fail without a meeting of minds”

- Financial Times, May 14, 2007

Employees are often referred to as the most valuable asset of a firm. While the traditional view considers employee satisfaction either irrelevant or even counter-productive (Taylor, 1911), several recent studies explore the potential importance of employee satisfaction for shareholder wealth. For example, Edmans (2011) reports a four-factor monthly alpha on a value-weighted portfolio of firms listed in Fortune magazine’s “Annual 100 Best Companies to Work For” (the BC list) at around 0.29%, equivalent to the annualized alpha of 3.5%. In a similar vein, other studies identify employees—or human capital, in a broader sense—as a key asset for increasing firm value (e.g., Rajan and Zingales, 1998; Carlin and Gervais, 2009; Berk, Stanton and Zechner, 2010; Moniz, 2016). In this study, we use novel social media data that capture employee satisfaction in U.S. S&P 500 firms between 2009 and 2015 in the context of mergers and acquisitions (M&As) to examine whether employee satisfaction has a positive or negative effect on the post-M&A stock performance of acquiring firms. To the best of our knowledge, this is the first empirical paper to explore its effects on acquirer stock performance using actual satisfaction scores posted voluntarily by employees. This allows us to examine if and how their perceptions of their firms have any fundamental impact on the effectiveness of the strategies pursued by the latter and the resulting firm value as evaluated by the stock market.

We focus on M&As in this paper because their inherent nature provides us with an ideal setting in which to observe the long-run effects of employee satisfaction on firm value. M&As are risky ventures, and almost 70% of mergers fail to achieve the intended synergies, according to a study by McKinsey (Christofferson, McNish and Sias, 2004). Although there are some ill-conceived M&A deals that lack strategic rationale, others fail despite seemingly promising value potential due to poor post-merger integration (Haspeslagh and Jemison, 1991). For example, Daimler-Benz’s disastrous acquisition of Chrysler for \$36 billion in 1998 is attributed to the ensuing clash over cultures and management styles. As M&As disrupt daily routines, incentive structures and employees’ career prospects at every level, whether a firm achieves successful post-merger integration has a huge effect on its future productivity.

In this respect, employee satisfaction has strong potential to alter the post-M&A performance of acquiring firms. More specifically, it can have a fundamental effect on the post-merger integration and realization of intended synergies. Begrudged employees may make the integration process difficult, which in turn can delay the sharing of resources and capabilities between acquirers and targets, leading to the eventual departure of key employees on both sides. In contrast, if the current employees are

satisfied with their firms, they are more likely to help ease the integration process. By doing so, they can harness the productivity of acquiring firms (Buono and Bowditch, 2003). Likewise, Melkonian, Monin and Noorderhaven (2011) show that employees' perceptions of procedural and distributive justice affect their willingness to cooperate in the post-M&A integration process. If such cooperation is not achieved, the firm's long-run performance is likely to suffer.

In contrast, M&As can also disrupt existing favorable employee relationship in an acquiring firm, which may create resentment among employees that can be detrimental to the firm value in the long run. Furthermore, given that the financing of M&As often results in significant changes to the firm's capital structure,¹ the increased leverage generated by the financing of the M&A deal may "affect the incentive for the firm to honor its implicit contracts and in other ways maintain a favorable reputation (Maksimovic and Titman, 1991, p. 176). When viewed as an investment in human capital, a firm's ability to maintain favorable employee relations can be jeopardized by a possible debt overhang problem (Myers, 1977; Berk, Stanton and Zechner, 2010) once the financing of the M&A is complete.

The aforementioned studies implicitly acknowledge a possible link between the acquiring firm's employee satisfaction before an M&A deal and its subsequent performance. If anything, given the risky, "make or break" nature of post-merger transitions, the effect of employee satisfaction on firm value may be more pronounced during M&A deals. However, the existing literature has hitherto failed to examine employee satisfaction as a critical element capable of determining a firm's long-run, post-M&A performance. Instead, previous studies have focused on acquirers' efforts to maintain their relationships with all types of stakeholders—both internal and external—within the specific context of corporate social responsibility (CSR). For example, Wang and Xie (2009) examine the acquiring firm's corporate governance, and Aktas, Bodt and Cousin (2011) and Deng, Kang and Low (2013) address the acquirers' handling of overall stakeholder relationships in enhancing post-merger performance. We complement these studies by offering a more focused perspective on the single most important internal stakeholder group, i.e., a firm's employees.

Examining the value implications of employee satisfaction in the context of M&As is also important because the existing literature that views employee satisfaction as intangible asset (e.g., Edmans, 2011) has failed to specify the particular context and process through which it generates tangible shareholder

¹ Using a sample of 1,538 takeover bids where the relative size of the target is at least 20% that of the acquirer, Hartford, Klasa and Walcott (2009) show that all-cash financed deals result in a substantial increase in the acquirer's book leverage, with the median deviation between the actual post-M&A leverage and its predicted value from previous history amounting to around 12%.

wealth. Can all firms benefit by fostering higher satisfaction among employees when they operate in stable, day-to-day business environment? Or does the power of employee satisfaction become stronger when the firm faces a structural break, i.e., when the firm engages in risky ventures such as M&As? Given the influential findings of previous studies, a closer examination of the context under which employee satisfaction becomes more relevant for the shareholder wealth is warranted, and this is the main aim of our study.

For this purpose, we examine 284 M&A deals completed by the S&P 500 firms between July 2009 and October 2015, for which the employee review data compiled from the career community website, Glassdoor, are available. In total, we collect 571,896 reviews of these firms, 343,980 (60.1%) of which are written by those identifying themselves as current employees. Although a handful of corporate finance (e.g., Huang, Li, Meschke and Guthrie, 2015; Moniz, 2016) and management (e.g., O'Reilly, Caldwell, Chatman and Doerr, 2014) papers have begun to use this dataset, our foremost contributions lie in our identification and isolation of the role of employee satisfaction in M&A decisions and the analysis of whether employees' candid assessments of their own firms affect shareholder values, both in the short and/or long run.

The key advantage of using the Glassdoor dataset is that it is voluntarily supplied by employees behind a veil of anonymity; as such, it truly captures internal stakeholders' perceptions in the eyes of the beholder. There are numerous aspects of the dataset that allow us to place sufficient confidence in the accuracy of its content and assessments. Each employee can post only a single review of their firm, minimizing their ability to systematically distort the information or opinions of others. Glassdoor then screens and maintains the integrity of the posted reviews. Given that many employees are constantly looking for better opportunities nowadays, those who register on the website to access the employee satisfaction data may be not only those who are actively seeking job changes, but also those who are genuinely curious about how other employees view their own firms, culminating in a broad user base.

This is a clear departure from the studies that use either the KLD STATS database (KLD) or the BC list, which assess a firm's employee satisfaction from an external perspective, either ignoring the silent voices of the employees altogether or making it difficult for them to speak out freely. In contrast, the Glassdoor data represent these internal stakeholders' own views expressed in their own words—an important distinction, as the corporate values enacted from the firm's perspective and those perceived by the employees have different effects on the firm's financial performance, as Guiso, Sapienza and Zingales (2015) reveal.² Moreover, because the Glassdoor reviews are posted in real time, it is possible

² Popadak (2013) similarly uses employee reviews collected by career intelligence firms that aim to reveal what life is

to engage in a higher frequency study of employee sentiment, in contrast with the annually published KLD or the BC list.

In terms of post-M&A performance, this study focuses on both the short-run announcements and long-run effects of these deals as evaluated by the stock market. We choose to analyze stock returns as they are relatively free of reverse causality issues. Although several studies use the Glassdoor dataset, they use Tobin's Q as the main valuation measure (Huang, Li, Meschke and Guthrie, 2015; Moniz, 2016). Such analyses are not free of reverse causality, however, given that the expected future firm value or accounting performance can affect current employee satisfaction. Employees may express higher degrees of satisfaction when the firm is expected to report superior operating performance. In contrast, any expected future performance should be incorporated immediately into the current stock price. This is the main reason why a large majority of studies of the shareholder wealth implications of stakeholder relationships prefer to use equity prices as their main measure of firm value.³

Yet, we explore the possibility that the market may not be able to immediately consider the impact of employee satisfaction when M&A announcements are made, as employee satisfaction—the internal stakeholders' "silent voices"—may be less notable than external-stakeholder-driven activities such as CSR. As Edmans (2011) notes, this does not necessarily imply that the market reacts in an inefficient manner; it merely represents the inherent difficulties associated with pinpointing the value implications of an intangible asset, i.e., employee satisfaction, until it begins to materialize as tangible wealth. As expected, we find that the statistical significance of employee satisfaction is very weak in explaining the acquirers' cumulative abnormal returns (CARs) around announcement window.

Nevertheless, we find consistent evidence of a positive long-run drift in stock returns when firms with high employee satisfaction scores engage in M&A deals. Over the 24-month horizon beginning at the end of the deal's announcement month, a value-weighted zero-cost portfolio with a long position on acquirers with above-median current employee satisfaction scores and an offsetting short position on the below-median acquirers yields Fama-French (2015) five-factor monthly alphas of around 0.55% over the risk-free rate and 0.45% over the industry-matched benchmark, implying annualized alphas of 6.7% and 5.5% respectively. The statistical significance is largely robust to various methodology

really like for the employees, highlighting the importance of "perceived" over proclaimed values.

³ Such studies of corporate social responsibility and stock market reaction include but are not limited to those by Hamilton, Jo and Statman (1993), Guerard (1997), Bauer, Koedijk and Otten (2005), Derwall, Guenster, Bauer and Koedijk (2005), Dimson, Karakas and Li (2015), Hong and Kacperczyk (2009), Statman and Glushkov (2009), Edmans (2011), Becchetti, Ciciretti, Hasan and Kobeissi (2012), Flammer (2013) and Krüger (2015). For a meta-analysis on this literature, see a study by Margolis, Elfenbein and Walsh (2009).

changes, including portfolio weighting, portfolio return winsorization, and other robustness tests based on the deal- and acquirer-level characteristics. A similarly significant long-run drift is evident at the 36-month horizon when we employ the event-time buy-and-hold abnormal return (BHAR) approach instead. In contrast, conventional measures of employee relations such as the KLD or the BC list are unable to generate strong positive long-run effects, highlighting the importance of a social media platform where the employees feel comfortable about expressing their views in their own words.⁴ Most importantly, a counterfactual case of a matched non-acquirer zero-cost portfolio between high- and low-employee-satisfaction firms does not exhibit similar statistical significance or economic magnitudes, which supports the relevance of M&As as a context in which the value implications of employee satisfaction become heightened.⁵

A similar portfolio analysis on the sub-category scores indicate that this positive long-run drift is primarily attributable to the employees' satisfaction on their career opportunities in the acquiring firm. Out of five sub-categories, satisfaction on career opportunities is the only variable that turns out to be consistently significant in both the calendar-time and event-time regression approaches. Importantly, the employees' satisfaction of their senior management and CEOs have little value implications, which renders it unlikely that our results are driven entirely by the ability of the acquirers' top management. Instead, given the existing findings in the organizational behavior literature over the critical role of internal career prospects on the employees' level of organizational commitment (Mathieu and Zajac, 1990), and the ensuing importance of organization commitment on employee retention and turnover-related intentions—factors critical to a smooth post-merger integration—we contend the employees' satisfaction of internal career mobility has plausible post-M&A value implications.

Overall, our finding of a positive long-run drift in stock prices echoes the findings of Edmans (2011). However, whereas he examines the overall stock performance of all firms on the BC list, acquirers and non-acquirers alike, our paper complements his work by identifying and focusing on M&As as the specific context in which the value implications of employee satisfaction are particularly pronounced yet largely intangible in the short run. In this way, our study contrasts with that of Deng, Kang and

⁴ In this way, our paper represents a significant extension of Edmans (2011), i.e., a long portfolio consisting only of the BC list does not consistently yield positive returns. In our context, it is the ability to simultaneously go long on high-satisfaction scores *and* short on low-satisfaction scores, given broader variations in our employee satisfaction data, that generates positive abnormal returns.

⁵ Although we recognize that the statistical significance of our portfolio alphas does not clear the 3.0 hurdle recently proposed in an influential paper by Harvey, Liu and Zhu (2016) in a majority of cases, given the small number of deals and short period leading to a much lower power of any statistical test, we contend that the consistent statistical significance found in our model should be taken seriously.

Low (2013), who demonstrate that the stock market reflects the effects of CSR more immediately, resulting in a less prominent long-run drift. Given the market's seeming inability to price the effect of employee satisfaction around the announcement of an M&A deal, our work also has strong managerial implications, knowing that these satisfaction scores are freely available and ready to be utilized.

2. Hypothesis Development

In broad terms, there are two competing hypotheses as to how an acquirer's cordial track record of employee relationships is likely to affect shareholder wealth following the completion of M&As. First, favorable employee relationships can create shareholder value in the aftermath of M&As. In particular, favorable employee relations may be the key to bringing about a smooth integration and transition to an accommodating, well-functioning entity after an M&A. For example, Cisco, a Silicon Valley firm with 175 completed acquisitions by 2015, values employee retention as a key to successful acquisition. Retention is critical to Cisco's M&A strategy because the employees of the acquired firms possess key technologies that must be integrated to achieve faster product development. In a comment on his/her own firm posted on Glassdoor, a Cisco employee illustrates how important employee satisfaction is for successful M&As:

Great community of people... so many mergers and acquisitions that there is always an influx of new talent and technology if you are looking for a place to begin a career and are looking for a stable, corporate-type job. Cisco is perfect.

This positive attitude on the part of employees ensures their critical support of the firm's operations following an M&A, leaving them better able to accommodate potentially disruptive changes and enhancing the firm's post-M&A shareholder wealth. Therefore, accommodating and embracing the biggest and arguably most important group of inside stakeholders, i.e., the employees, is crucial in firms' post-M&A valuations, which also coincide with the large amount of management literature that identifies employees as firms' invisible assets (e.g., Itami, 1991). Reputations can be built over time at firms with greater satisfaction among internal stakeholders. According to Freeman (1984), such a reputation-building mechanism can further contribute toward enhanced financial performance.

Moreover, according to efficiency wage theory (e.g., Shapiro and Stiglitz, 1984; Akerlof and Yellen, 1986), the greater the employees' satisfaction—financial or otherwise—the greater the cost of losing their job and the less likely they are to engage in value-destroying activities. In situations where firms cannot directly force employees to maintain positive efforts and attitudes, their satisfaction acts as a

powerful disciplining device against possible shirking or sabotage attempts in the aftermath of an M&A. In this way, a firm with better employee relationships is also better prepared to retain the implicit contracts that worked well before the M&A. This is critical to successful continued operations; after all, an acquirer with employees holding an accommodating, positive view of “an influx of new talent and technology” is more likely to benefit than one with a negatively dispositioned staff.

However, alternatively, employee satisfaction can be an obstacle to shareholder value in the M&A context. M&As create unnecessary disruptions in otherwise well-functioning firms with well-balanced employee relationships. This view is reflected in another Glassdoor review by a Cisco employee:

Why are we bringing 100% of people on board from M&As? Find a way to do more with less when taking over a company. The people paying the price are often those most loyal to Cisco and those who've been around quite a while.

From this point of view, M&As may upset internal stakeholders, particularly current employees, and in some instances uproot the long-term employment relationships built over years or even decades. Such ill feelings and resentment among employees make it more difficult to motivate them following M&A deals. More specifically, they may destroy a firm's intangible assets in the form of positive insider stakeholder relationships, in turn reducing the shareholder wealth. Further supporting evidence for this hypothesis is given by Bekier, Bogardus and Oldham (2001), who find evidence of distracted staff as important in explaining the underperformance of target firms after merger announcements.

To summarize, neither hypothesis disputes the intricate link between stakeholder relationship and shareholder wealth. Stakeholder theory (e.g., Alchian and Demsetz, 1972; Jensen and Meckling, 1976; Cornell and Shapiro, 1987; Hill and Jones, 1992) views a firm as a collation of implicit contracts between each of its key stakeholder groups and shareholders. The stakeholders' willingness to provide key resources and support the firm's operations are critical to long-term survivability and profitability. Where these two hypotheses differ, however, is in their predictions following the M&A deals. Although the “value-destroying view” sees M&As as a force that disrupts the favorable stakeholder relationships, the “value-enhancing view” contends that the favorable employee relationships are the key to creating synergies between the two firms in the post-M&A environment. More specifically, these competing hypotheses can be summarized as follows:

(H1a) Value-enhancing view: favorable employee satisfaction before the M&A enables smooth post-M&A integration and thus contributes positively to shareholder wealth.

(H1b) Value-destroying view: the M&A disrupts the employee relations such that favorable

employee satisfaction before the M&A contributes negatively to shareholder wealth.

These hypotheses consider whether the implicit relationships between internal stakeholders, i.e., employees and shareholders, can change following an M&A. Given that our primary focus is on stock market implications, these hypotheses can be tested by obtaining the sum of announcements and long-run effects. Although several studies explore similar hypotheses related to external stakeholders (e.g., Deng, Kang and Low, 2013), no study has hitherto focused on firms' internal stakeholder relationships separately as the main variable of interest.

In this respect, our paper is a natural extension of Edmans (2011); while his study shows that firms in the BC list generates superior stock returns, a result known as “doing well by doing good,” we do not yet know the specifics of the contexts and processes under which employee satisfaction increases firm value. Suppose that employee satisfaction has a value-enhancing potential. Can all firms benefit from higher employee satisfaction even under normal day-to-day business environment? If not, does the value of employee satisfaction only become particularly relevant for the shareholders when the firm initiates a major, risky transition such as an M&A? Whether employee satisfaction—assuming that it has an impact on shareholder wealth—is relevant in all circumstances or only under a specific set of circumstances is a question well worth exploring with strong managerial implications. Given the highly risky nature of M&As and their potential to fundamentally alter a firm's internal stakeholder relationships, we posit that the effect of employee satisfaction is more likely to be relevant for the shareholders when a firm is about to engage in a structural break. More specifically, we expect that:

(H2) Employee satisfaction is more relevant toward shareholder wealth when the firm engages in risky ventures such as M&As compared to normal business environment.

In short, we expect the value implications of employee satisfaction to be context-dependent. In this respect, our study should be seen as a joint test of both the power of employee satisfaction as well as the relevance of M&As as an appropriate context in which the value of employee satisfaction manifests itself more visibly. We test this hypothesis by engaging in two sets of analysis. First, in Section 4.1, we replicate the BC list portfolio of Edmans (2011), both for the entire sample of public firms and for the subsample of S&P 500 firms from which our M&A deal samples are drawn. This examines whether S&P 500 firms with superior employee satisfaction—acquirers and non-acquirers alike—on the whole post superior returns over our sample period. Second, in Section 5.1, we employ propensity score matching to build a counterfactual scenario for the long-run portfolio analysis, assigning for every acquirer a matching non-acquirer with similar satisfaction scores and other firm characteristics. This has an additional benefit of controlling for the endogenous likelihood of an M&A.

Finally, the paucity of research on internal stakeholders, particularly on employee satisfaction, raises questions about the stock market's ability to value them appropriately. Does the stock market duly recognize the effects of employee satisfaction on firm value, assuming such effects exist? The stock market is known to have exhibited difficulties in valuing intangible assets. For example, firms with high R&D expenditures (Lev and Sougiannis, 1996; Chan, Lakonishok and Sougiannis, 2001) or high patent citations (Deng, Lev and Narin, 1999) exhibit strong long-run drifts in stock returns, indicating that the market may not be able to pinpoint the value implications of intangible assets.⁶ We posit that employee satisfaction could be another such factor.

Such difficulties in valuing intangible assets may stem from a lack of relevant information or the considerable time-consuming effort required to process the information (Lev, 2004; Edmans, 2011). However, Edmans (2011) reports that even when the information itself is highly visible and publicized, such as the publication of the BC list, the market may still fail to react. This is attributed to a channel of mispricing where “an intangible only affects the stock price when it subsequently manifests in tangible outcomes that are valued by the market (Edmans, 2011, p. 623).” Our data allow for a direct empirical test of this mispricing prediction, as summarized in the following hypothesis.

(H3) Due to the intangible nature of employee satisfaction, the stock market takes longer to fully incorporate its effect on M&A announcements.

We explore this hypothesis by separately examining the CARs around M&A announcement and the subsequent long-run holding-period returns of acquirer portfolio sorted on employee satisfaction. Assuming that employee satisfaction does affect shareholder wealth following an M&A, investors capable of valuing intangible assets should capture its value immediately upon the announcement. If so, there should be no long-run drift in the subsequent stock returns, as its effect will already have been incorporated. In contrast, if the stock market fails to incorporate its value immediately, it exerts an insufficient effect on the announcement, leading to a possible long-run drift. This may be viewed in contrast with the more immediate but somewhat weaker long-run effect of CSR on post-M&A stock performance, as Deng, Kang and Low (2013) reveal.

⁶ Other prominent examples of the market's inability to value intangible (or partly intangible) assets include Gompers, Ishii and Metrick's (2003) findings of a superior return on corporate governance sorted portfolios; Yermack's (2006) negative alpha result for firms with CEO corporate jets; and Hong and Kacperczyk's (2009) findings of a superior long-run return on sin stocks. More specific to M&As, Masulis, Wang and Xie (2007) report that acquirers with better corporate governance enjoy a post-merger stock performance superior to that of their poorly governed counterparts.

3. Data

In this section, we discuss the sample construction methodology and characteristics of our main measure of employee satisfaction, i.e., the anonymous employee review data collected from Glassdoor. We also describe the methodology to address any potential endogeneity in our empirical analysis.

3.1. Employee satisfaction measure: Glassdoor employee review data

Until recently, most studies of employee satisfaction—and CSR in general—have used either KLD or the BC list as their key measure of employee treatment (e.g., Dhrymes, 1998; Bae, Kang and Wang, 2011; Hong and Kostovetsky, 2012; Di Giuli and Kostovetsky, 2014; Deng, Kang and Low, 2013; Kang and Kim, 2016). However, questions arise over whether these results truly represent the honest perceptions of a firm’s employees, highlighted as follows.

The KLD scores are essentially extensive qualitative checklists of whether a firm has a particular set of strengths or concerns that can be influenced by the firm to a certain extent. For example, a firm with poor workplace culture and high employee dissatisfaction can still achieve high scores on its employee relations if it offers cash profit sharing and comprehensive health and safety programs. Obviously, these variables alone cannot capture the often complex nature of employee relationships in the actual workplace.⁷ Moreover, the KLD scores aim to provide a broad, objective picture of a firm’s overall stakeholder relationships, both internally and externally. As a result, the checklist consists of various factors that the market and public perceive as important determinants of employee relations, such as union relations, cash profit sharing and retirement benefits. Such factors are clear, tangible, and easier for the investors to comprehend, but they may not correspond with the factors that the firm’s employees actually perceive as important.

The BC list also has limitations. It relies on a workplace employee survey, but the firm must apply to be considered. Although the Great Places to Work® Institute works to minimize firms’ influence on survey outcomes, the fact that the firm has initiated it may still impair the employees’ willingness and ability to engage in truly frank, honest assessments of their firms. Moreover, given that the list covers only the 100 best companies in the U.S. for employee relations, it does not capture the dynamics at the

⁷ Krüger (2015) notes that the qualitative nature of stakeholder relationships and corporate social responsibility leads to “the difficulty in accurately quantifying CSR given the qualitative nature of many CSR-related issues (p. 305).”

lower end of the employee satisfaction spectrum.⁸

Our employee satisfaction data are instead collected from Glassdoor, an independent social media website founded in 2007 that provides both current and former employees with a forum in which to post anonymous reviews of their firms, both quantitatively (in the form of Likert scale scores) and qualitatively (through written comments). Most importantly, Glassdoor features employees' candid perceptions of their firms and CEOs, which is a distinct advantage of its use in our study compared to other databases that combine employee perceptions and firms' proclaimed values. However, due to its short history and limited access, this dataset has hitherto been used by only a few studies, including studies by Huang, Li, Meschke and Guthrie (2015) and Moniz (2016).

The specifics of the Glassdoor database are as follows. For the quantitative assessments, employees rate their overall satisfaction and degree of satisfaction with the following subcategories using 5-point Likert scales: (1) work-life balance, (2) culture and values (available from 2012 onward), (3) career opportunities, (4) compensation and benefits, and (5) senior management. Employees are also asked for a binary response as to whether they would recommend their firms to their friends. Finally, there are 3-point Likert scale assessments (i.e., positive, neutral or negative) of employees' perceptions of their firms' outlooks (available from 2012) and their opinions about the firms' CEOs.

The employees are also asked to engage in a qualitative assessment of the pros and cons of working in their firms, along with any specific recommendations or advice they may have for the firm's senior management. Protecting the employees' anonymity is of paramount concern to ensure frank and honest responses. However, employees must indicate whether they are current or former employees. If willing, employees may also post additional information about their job descriptions, work locations, full- or part-time status and length of service in the aforementioned firm. Panel A of Figure 1 illustrates one such example for NetApp, one of the acquirers in our final sample.

FIGURE 1 HERE

An additional benefit of Glassdoor is that it computes and publishes a company's summary statistics on employee satisfaction. An example is provided in Panel B of Figure 1. Although the average rating reported is an average of all reviews since its inception, time series variations can still be inferred from

⁸ For example, out of the 284 deals in our sample, there are 48 in which the acquirer is listed in the latest available BC list at the time of the announcement. Unsurprisingly, 46 of those 48 deals are in the above-median subsample when sorted by the Glassdoor.com employment satisfaction score used in our study. Thus, using the BC list means that we capture the behavior of only the top echelon of firms in terms of employee satisfaction, a problem already noted by Edmans (2011).

even a cursory glance at the rating trends. Thus, it is worth highlighting that the satisfaction scores are directly visible, comparable across firms, and available to any member.

Although there are other competing platforms through which employees can share the information about their firms, Glassdoor has the widest coverage. Quantcast reports that Glassdoor has a reach of over 17 million people per month, 15 million of whom reside in the United States. Another advantage of using the Glassdoor dataset is that the integrity of the reviews is constantly reviewed by its web editors. Not only do the reviewers have to register and verify their e-mail addresses, but the comments construed as defamatory attacks or meaningless repetition are also screened and rejected by in-house staff. More importantly, the reviewers must complete both the pros *and* cons sections of the qualitative assessment to provide a balanced picture. Enforcing these strict community guidelines instills greater confidence in the quality of the data for the purpose of our analysis.

We obtain the review data at the individual level for all of the firms included in the S&P 500 Index for the period between June 2008 and October 2015. More specifically, we collect 571,896 reviews, 343,980 (60.1%) of which are written by current employees. The number of reviews varies greatly between firms, from 16,070 for IBM to only 2 for Wisconsin Energy. For the purpose of our subsequent analysis, we average the satisfaction scores over either (i) all employee reviews or (ii) a subsample of reviews by current employees. This is to ensure that our results are not driven by former employees who might have left the firms long beforehand.

Quantcast also reports that the demographics of the users visiting Glassdoor tend to over-represent high-income earners aged 25-34 with graduate school educations relative to the U.S. population as a whole.⁹ This self-selection issue, along with the “halo effect” inherent in any type of questionnaire-based review or survey (e.g., Thorndike, 1920), create a potential bias in our OLS estimates. To alleviate this problem, we take a two-stage least squares (2SLS) approach similar to that of Huang, Li, Meschke and Guthrie (2015) and use the ratio of the number of current employee reviews to all reviews (the current-all ratio) as an instrument variable. Former employees tend to leave their firms due to various sources of dissatisfaction, so their reviews tend to push the satisfaction scores downward. However, current employees that visit the Glassdoor website are either satisfied with their jobs and wish to publicize it or are unhappy with their current positions and looking for new ones; as such, their reviews are not, on average, as scathing as those of former employees. Thus, a significant relationship between the current-employee ratio and employee satisfaction score is to be expected. However, it is

⁹ The demographic figures were taken from <https://www.quantcast.com/glassdoor.com#demographicsCard> on May 18, 2016. Moniz’s (2016) results are similar.

difficult to envisage how the relationship directly affects firms' stock performance other than through its effect on the employee satisfaction score, satisfying the criterion as an instrument.

Finally, to compare our results directly with the findings of other studies of employee relations, we also gather data from the BC list and KLD. Given our primary purpose, we focus on the employee relations component of the KLD, one of its seven dimensions.¹⁰ However, as Manescu (2011) and Deng, Kang and Low (2013) point out, the different numbers of "checklists" for strengths and weaknesses over time have made comparing KLD scores across years very difficult. As a result, we use the adjusted measure proposed by Manescu (2011), which is also used by Deng, Kang and Low (2013), with firm i 's adjusted score in year j , $EMP_{i,j}$, given by:

$$EMP_{i,j} = \frac{\text{No.of Strengths}_{i,j}}{\text{No.of Strength Criteria}_j} - \frac{\text{No.of Weaknesses}_{i,j}}{\text{No.of Weakness Criteria}_j}. \quad (1)$$

3.2. M&A deal sample

We obtain the sample of M&A deals used in our study from the Securities Data Company (SDC) Platinum database by Thomson Reuters. Our initial Glassdoor data cover U.S. S&P 500 firms between June 2008 and October 2015. As we need a sufficient time window before the M&A announcements to aggregate the satisfaction scores of the acquirer's employees, we focus on the period between June 2009 and October 2015. Our sample of S&P 500 firms is appropriate as they are the major players in the market for corporate control.

We then apply the following criteria to create our M&A sample. First, the acquirer must be publicly traded, with its stock price reported in the Center for Research in Security Prices (CRSP) database. Second, the acquirer must also have financial statement data available in the Compustat database. Third, the disclosed deal value must be available in the SDC Platinum database and exceed \$1 million. Fourth, all merger or acquisition deals must be successfully completed. Fifth, the acquirer must hold less than 50% of the shares in the target before the announcement, and must hold 100% of the target's shares afterwards. Finally, over the 12-month period before the announcement, the acquirer must have received at least 5 reviews in the Glassdoor database to enable a meaningful aggregation of employee satisfaction scores.¹¹ Our final sample consists of 284 M&As made by 119 firms. For this sample,

¹⁰ The remaining six dimensions are community relations, corporate governance, diversity, environment, human rights and product safety.

¹¹ Raising this threshold to a higher level, such as 10 or 20, has no qualitative effect on our results, which we omit for the

there are 54,115 reviews in the Glassdoor.com database within the 12-month window before the M&A announcement date, 33,767 (62.4%) of which are written by current employees.

Unlike studies that examine the relationship between mergers and CSR, we do not exclude the financial or utilities industries from our analysis. The main reason for their exclusion from those studies (e.g., Deng, Kang and Low, 2013) is that due to the highly regulated nature of these industries, the underlying relationship between the acquirer and its external shareholders is expected to differ substantially from those in other industries, and the acquirer may not have a sufficient degree of freedom in choosing its levels of investment in stakeholder relationships. In contrast, our sole focus in this study is on the firm's relationship with its own employees. Issues such as how employees are treated in terms of work-life balance or opportunities for promotion are always important concerns for firms regardless of their industry participation.¹²

We similarly consider both merger and acquisition events. Although an acquired subsidiary may continue to operate as separate entity and thus have less of an effect on external stakeholders than in a merger, the difference between mergers and subsidiary acquisitions is less obvious in terms of their implications for internal stakeholders. This is particularly likely if the acquirers' employees consider relative "distributive justice" with their peers in the acquired subsidiaries. For example, if an acquirer honors a generous benefits package enjoyed by the employees of the target's subsidiary, such as long paid leave or family concessions, it may generate resentment among the acquirer's own employees ineligible for similar packages. As a result, the firm's implicit relationship with its employees is likely to be affected not just by mergers, but also by acquisitions.¹³

TABLE 1 HERE

In Panel A of Table 1, we present the breakdown of our 284 M&A deals according to the acquirer's broad industrial sector, based on the first two digits of its Standard Industry Classification (SIC) code and the announcement year. Over 40% of our deal samples occurred in the manufacturing sector, and regulated industries, i.e., financials and utilities, account for around 20% of our sample.

Having obtained the final M&A deal sample, we complement the data with a number of firm-level

brevity of exposition in this study.

¹² For the calendar-time and event-time analyses performed in the later part of this paper, we rigorously check to ensure that all the factor returns and sorting portfolios include the firms in these financial and utilities industries, eliminating any bias arising from a possible discrepancy in the asset universe.

¹³ However, as we show in Section 5.2, excluding these acquisition events has no major effect on the qualitative results.

financial variables from Compustat, CRSP or other sources, along with another set of variables for the deal-level characteristics. The entire list of variables used in this paper is provided in Table A.1 of the Appendix, with accompanying explanations for how each variable is constructed.

In Panel B, we present the summary statistics of our deal sample, both the full sample and the subsamples above and below the median employee satisfaction score. For the main part of the analysis, we sort the high- and low-satisfaction subsamples based on the sample median employee satisfaction score of all acquirers, as this yields two equal sized subsamples sorted in the least arbitrary manner. Since our sample is relatively small over a short span, an unequal balance of observations between the two subsamples can lead to various problems. However, this induces look ahead bias as the sorting is performed with an ex post conditioning variable. Thus, to check whether our portfolio analysis results are driven by the look ahead bias, we employ a different portfolio sorting method with a cut-off point computable ex ante in Section 5.2, with no qualitative change to our main results.

Moreover, we make a distinction between the employee satisfaction scores computed from all of the reviews written by the acquirer's employees, both former and current, and those computed from the current employees only. As we require at least five reviews written by current employees, 17 out of 284 samples do not satisfy this criterion, and thus only 267 deals are used for our analysis using current employee satisfaction scores.

Descriptive statistics suggest that firms with above-median overall satisfaction scores fare better than those below median across all sub-categories of employee satisfaction; the differences in sub-category scores such as compensation and benefits or work-life balance between high- and low-overall-satisfaction samples are significant at 1% level in all instances. It may be possible that firms treating its employees well may do so in all aspects of the employees' work life. However, it also raises the possibility of a "halo effect." Thus, in our regression analysis, we employ both OLS and 2SLS methods, with the current-all ratio as the instrument.

Looking at the firm-level characteristics, we find that larger firms tend to garner higher employee satisfaction, with the high-low difference significant at the 5% level. The same is true of firms with higher Tobin's Q, investment, and R&D spending. In contrast, employees in firms with higher leverage report lower satisfaction, a finding consistent with that of Bae, Kang and Wang (2011). For other firm characteristics, however, the differences between the satisfaction-sorted subsamples are insignificant. In particular, there is seemingly little association between employee satisfaction and a firm's free cash flow or market-adjusted return in the run up to the announcement, contrary to the casual expectation that firms with high employee satisfaction may be profitable or carry a stock market momentum.

It is also worth noting that the high-satisfaction subsample contains relatively higher proportions of acquisition events and international deals than its low-satisfaction counterpart, and when sorted on the average satisfaction scores of all employees, the high-satisfaction subsample also exhibits a smaller average deal size relative to the acquirer's market capitalization. Finally, it appears that our measure is closely related to the conventional measures of employee satisfaction used in previous studies, with the high-low subsample differences for the adjusted KLD Employee Relations score and the BC list inclusion dummy significant at the 1% level, regardless of how the satisfaction scores are averaged.

3.3. Methodology

To examine the effects of the M&A announcements, we closely follow the CAR regression model used by Masulis, Wang and Xie (2007) and Deng, Kang and Low (2013). We include several control variables, illustrated as follows. First, we include firm-level characteristic variables, including firm size, market leverage and Tobin's Q. The inclusion of Tobin's Q is important, as it at least partially accounts for the managerial talent (e.g., Lang, Stulz and Walkling, 1989), which may also affect employee satisfaction. It can be argued that talented managers induce greater satisfaction from their employees, such that the employee satisfaction captures only the firm's managerial talent. To account for the possibility that employee satisfaction is driven by the firm's financial conditions in the run up to the announcement, we also include free cash flow and the firm's previous market-adjusted return, also known as the buy-and-hold abnormal return (BHAR) measured over the window beginning 200 trading days before and ending 11 trading days before the deal announcement.

Second, we include the following deal characteristic control variables: deal size relative to the market capitalization of the acquirer at the month-end preceding the announcement, industry M&A value, high tech, diversification M&A, public target, cash only, stock deal, and tender offer dummies. Unlike as in Deng, Kang and Low (2013), all deals in our final sample are classified as either friendly or neutral, so we do not include a hostile dummy. However, because our sample includes both merger and acquisition events, we include an acquisition event dummy. Nevertheless, as the SDC database occasionally misclassifies the target's status and it is not possible to resort to mechanical matching with the CRSP database to distinguish between private targets and subsidiaries, we define acquisition events strictly by assigning a value of 1 only when the division or facility sold by the target is explicitly specified in the database. We also include an international deal dummy. Lastly, given the small sample size, we winsorize all variables at the 5% level to minimize the effects of any outliers.

As stated earlier, we use the current-all ratio as an instrument to control for possible errors-in-

variable (EIV) problems when engaging in CAR regressions. Untabulated results indicate that using this as an instrument produces a first-stage F-statistic of just under 12, which is larger than Staiger and Stock's (1997) rule-of-thumb of 10 and Stock and Yogo's (2005) critical value for the weak instrument test based on the maximal TSLS size of 15% (at the 5% level). The corresponding F-statistic for the current employees' satisfaction scores is much lower, indicating a possible weak instrument problem. As a result, we consider only the employee satisfaction scores averaged over all employees in 2SLS regressions when analyzing the short-run announcement effects of employee satisfaction. All second-stage regressions pass the Sargan (1958) over-identification test.

There are, however, several alternative explanations that we must consider. First, it may be argued that employee satisfaction merely captures the firm's ability to treat its employees well due to its strong market power. Thus, we include the acquirer's Herfindahl-Hirschman Index (HHI) in all of our CAR regression specifications. Second, it may also be argued that employee satisfaction can be associated with corporate governance. Given that Gompers, Ishii and Metrick's (2003) G-Index, the most widely used corporate governance indicated, has been discontinued since 2007, we follow Guiso, Sapienza and Zingales (2015) and assign the latest available value for the acquirers covered before 2007.

4. Empirical results

In this section, we first engage in a replication of the portfolio construction methodology by Edmans (2011) for our sample period. This helps us in establishing whether employee satisfaction has general implications for shareholder wealth during our sample period—both for acquirers and non-acquirers alike—or more context-specific implications. We then present our main results by engaging in (a) CAR regressions around M&A announcements and (b) long-run post-M&A stock performance. In Section 5, we subsequently perform robustness checks on the results explored in this section.

4.1. BC list portfolio analysis

We first present the calendar-time portfolio analysis results when portfolios are formed according to the latest available BC list, with the methodology identical to Edmans' (2011). All firms with a place in the BC list for calendar year t are included in the portfolio on February 1 of year t and are held until January 31 of year $t + 1$. As in Edmans (2011), we construct both equal- and value-weighted portfolios, as anomalies are sensitive to the method of portfolio weighting (Fama and French, 2008); specifically, anomalies prevalent in small- or medium-sized firms are less likely to be robust when the portfolios

are value-weighted and vice versa. This amounts to a replication of Table 3 in Edmans (2011).

We use two benchmarks for the portfolio returns. The first is the risk-free rate, but we also compare the portfolio return against the industry-matched portfolio using the Fama-French (1997) 49-industry classification as in Edmans (2011), with the industry portfolio returns from Ken French’s website. For the case of equal-weighted portfolios, the industry portfolio is also equal-weighted; for value-weighted portfolios, we use value-weighted industry portfolios.

We analyze the cross-sectional variations in expected returns using the Fama-French (2015) five-factor model,

$$r_{i,t} = \alpha + \beta_{MKT}MKT_t + \beta_{SMB}SMB_t + \beta_{HML}HML_t + \beta_{RMW}RMW_t + \beta_{CMA}CMA_t + \varepsilon_{i,t}, \quad (2)$$

where $r_{i,t}$ is the portfolio return in excess of the benchmark in period t , with MKT_t , SMB_t , HML_t , RMW_t and CMA_t denoting the returns on market, size, book-to-market, profitability and investment factors, respectively. However, for comparability purposes, we also report results for the Carhart (1997) four-factor model,

$$r_{i,t} = \alpha + \beta_{MKT}MKT_t + \beta_{SMB}SMB_t + \beta_{HML}HML_t + \beta_{UMD}UMD_t + \varepsilon_{i,t}, \quad (3)$$

that drops RMW_t and CMA_t in favor of the momentum factor UMD_t instead. Even though Edmans (2011) uses Carhart four-factor model, we also present the result for the Fama-French five-factor model as it is our preferred multi-factor model throughout our analysis. The reason for this is that our high- and low-satisfaction subsamples exhibit significant differences in investment characteristic, a factor widely known to affect cross-sectional asset pricing (e.g., Fama and French, 2016).

We consider two different sample universe when replicating Edmans’ (2011) portfolio analysis for our sample period. First, we consider the entire universe of U.S. public firms. Second, we restrict our attention to the subsample of S&P 500 firms from which our M&A deal database is constructed. Table 2 presents our results.¹⁴

TABLE 2 HERE

Unlike in Edmans (2011), we are unable to find any significant and meaningful alpha for the BC-listed firms, regardless of the portfolio weighting method, benchmark, and the multi-factor model used. Notwithstanding whether the returns are winsorized or not, the point estimates are very close to zero

¹⁴ In the Online Appendix, we also check whether a different treatment of the outliers affects the portfolio analysis results by re-estimating Table 2 using portfolio returns winsorized at the 5% level. All results remain qualitatively unchanged.

and even negative in some instances, and none of the alpha estimates exhibit any statistical significance. Both the full sample and the S&P 500 subsample yield very similar point estimates because the BC list has a disproportionate presence of large firms among all listed firms.¹⁵ Unsurprisingly, though, the S&P 500 subsample has a lower exposure to the size factor.

There are a number of reasons for the discrepancy between our portfolio results and Edmans' (2011). Whereas Edmans (2011) considers sample period between 1984 and 2009, we restrict our attention to the period between 2009 and 2015, resulting in very little overlap. Crucially, as early as in April 2008, TIME magazine brought his paper to public attention, and by February 2009, The Economist magazine publicized his findings even more prominently. Thus, over our sample period, investors and SRI funds would have been more aware of the value implications of being listed in the BC list. While it is difficult to engage in a direct test of the BC list's announcement effect due to uncertainties in the circulation date of Fortune magazine issues that contain the annual BC list, it is plausible to surmise that, given the high visibility of Edmans' (2011) findings among investors, the market reaction is likely to have been stronger over the short term, resulting in a less prominent long-run effect. In other words, any possible discrepancy is likely to have emanated from the increased attention of investment community and their resulting response in the market.

Yet, if our (H2) is true, this may not be the end of the story. While employee satisfaction may appear less relevant when aggregated across the cross-section, it may still be relevant for firms undergoing a major structural shift, such as firms engaging in M&As. Moreover, as the BC list only captures the top echelon of firms in terms of employee satisfaction, the dynamics in firms with low levels of employee satisfaction may not be adequately captured. Further still, the surveys conducted by the Great Places to Work® Institute is initiated by the firm itself, which may lead to potential discrepancies in employee responses in the BC list and their own, true perceptions. By applying the data collected from Glassdoor reviews written by the employees themselves, we are able to answer these remaining questions. Thus, we proceed with our analysis of acquirer sample.

4.2. Announcement effect

The main variable of interest for the announcement effect among our sample of M&A deals is the CAR around the event dates. We calculate the CARs from the market model over a period that begins

¹⁵ For example, in 2009, 28 out of 39 listed firms in the BC list belonged to our subsample of S&P 500 firms.

200 trading days before and ends 11 trading days before the announcement date, using the CRSP value-weighted return as our market return. Following Deng, Kang and Low (2013), we focus on three event windows: (-5, 5), (-2, 2) and (-1, 1) trading days around the announcement date.

In addition to the acquirer CAR, we also collect target CARs for 58 public targets with stock price data available on the CRSP database. This addresses a potential concern, namely that the short-term effect of the satisfaction levels of the acquirers' employees may be captured in the target's stock price, not the acquirer's. Out of these, we focus specifically on 52 deals where the target's financial data is available in the Compustat database. All but one of these deals have sufficient reviews posted by the acquirer's current employees in the pre-12-month window. We also calculate acquirer-target combined CARs, using the relative deal size as the weight between the acquirer and the target. Unfortunately, though, we limit our attention to the satisfaction scores of the acquirers' employees but not the targets' because fewer than 20 targets yield more than 5 Glassdoor reviews during the pre-12-month window.¹⁶

4.2.1. Univariate tests

Table 3 reports the results of the univariate test of the average acquirer CARs for our sample for the three aforementioned event windows. We divide the sample into two subsamples at the cut-off point of the median employee satisfaction score. We then construct another set of subsamples for the scores computed from the current employees' reviews only.

TABLE 3 HERE

For all three event windows, CARs for the full sample have positive signs but are insignificant. The differences in CARs between the two satisfaction-sorted subsamples are also insignificant, regardless of whether we include all reviews or restrict ourselves to those reviews written by current employees. Their signs also exhibit a lack of consistency depending on the event window, a *prima facie* indication of the market's failure to incorporate the acquirer's level of employee satisfaction upon announcement.

4.2.2. CAR regression results

Table 3 provides a rough picture of the relationship between the acquirer CAR and its level of

¹⁶ In fact, given the data limitation on KLD database's CSR activity coverage, Deng, Kang and Low (2013) also similarly limit their attention to acquirers' CSR score, analyzing its short-term effect on acquirer and acquirer-target combined CARs.

employee satisfaction in the run-up to the M&A announcement. Thus, we now examine the regressions of the acquirer CAR on employee satisfaction scores in addition to an extensive list of acquirer- and deal-level characteristics to better understand the announcement effects of employee satisfaction.

TABLE 4 HERE

Panel A of Table 4 presents the results of OLS regressions of acquirer CAR on the satisfaction scores averaged over all employee reviews and various control variables. From column 1, it is immediately apparent that the overall satisfaction score is insignificant, both statistically and economically. Its point estimate remains positive but marginally decreases when the adjusted CSR score collected from the KLD is added to the regression, as can be seen in column 2. When G-Index is added to the regression in column 3, the sign of the satisfaction score turns negative, but its statistical significance remains minimal. Columns 4 to 9 then report the regression results when the sub-category satisfaction scores replace the overall score, either individually or jointly. None of the estimates are statistically significant.

Apart from employee satisfaction, a number of control variables exert consistently significant effects on the acquirer CAR. Tobin's Q is unsurprisingly positive and significant at the 10% level in most of the regressions with economically meaningful magnitudes. In contrast, the acquirer's free cash flow has a negative sign, significant at the 10% level, reflecting the stock market's fears about the potential over-investment problem. The tender offer dummy is significantly negative at the 1% level in all but one specification, further supporting the market's aversion to over-investment. However, the relative deal size has a positive sign and exerts a significant effect on the acquirer CAR. Seemingly contrary to expectations, this may be due in part to our sample period, which covers the immediate aftermath of the global financial crisis of 2007-2009. During the subsequent recession, acquirers might not have been willing to initiate a large deal unless they were confident that doing so would be viewed favorably by the market. Thus, the positive effect of relative deal size on the acquirer CAR may signal careful selection and confidence in acquiring firms' initiation of large deals.

Panel B of Table 4 replicates Panel A using the satisfaction scores of current employees only. The overall picture remains similar, and no satisfaction score—either overall or any of the subcategories—is significant in any of the regressions. A similar result is obtained in Panel C of Table 4, which reports the results from the 2SLS regressions, using the current-all ratio as the instrument. Although the point estimates of the employee satisfaction variables increase substantially, so do the standard errors, and their statistical significance remains weak.

TABLE 5 HERE

In Table 5, we then focus on 51 deals involving public targets for which target CARs, target financial information and the satisfaction scores of the acquirer's current employees are available. In Panel A of Table 5, we examine whether the satisfaction scores of acquirer's employees have an effect on target CAR. However, as there are only 51 deals, the long list of controls used in Table 4 is no longer appropriate. After an extensive set of untabulated model specification tests, we choose the following set of controls that yield the best Akaike information criterion. For target- and acquirer-level variables, we use the acquirer's adjusted CSR score, free cash flow and market leverage, as well as the target's free cash flow and previous market-adjusted return. Then, for the deal-level variables, we use relative deal size and industry M&A as well as cash, stock, and tender offer dummies. Given the small number of observations, broad sectoral dummies based on the first digit of the acquirer SIC are used instead of the standard two-digit industry dummies.

Panel A reveals that a higher overall satisfaction score of the acquirer's current employees leads to lower target CAR, but the relationship is not statistically significant. While the point estimate itself is very large at around -15%, so are the standard errors. Interestingly, higher satisfaction scores for senior management and CEO among acquirer's current employees substantially depresses target CAR, with the relationship statistically significant at the 5% level when each sub-category score is considered in isolation. However, statistical significance disappears when all sub-categories are jointly included, so we remain cautious in interpreting this finding. One possible explanation for this is that the employee satisfaction of the acquirer's top management signals its ability, and that a more capable managerial team is less likely to engage in over-bidding for the target firm.

Panel B of Table 5 then repeats the same OLS regression analysis, but using the combined CAR of the acquirer and target as the dependent variable instead. As in Table 4, neither the overall satisfaction score nor any of the sub-category satisfaction score exhibits any statistical significance, regardless of whether they are considered jointly or in isolation. The point estimate of the coefficient on the overall satisfaction score itself is also small.

Our results indicate that the effect of employee satisfaction on the acquirer CAR or the combined CAR of the acquirer and the target is very weak over the announcement window. Regardless of the estimation methodologies and the inclusion or exclusion of former employees in the satisfaction score calculations, the short-term announcement effect of employee satisfaction on the stock price of the acquirer or the combined entity is insignificant. Although this may partially be driven by the possible low power of our statistical test due to the relatively small sample size, it nevertheless strongly suggests the possibility of the market's inability to value employee satisfaction, at least in the short run.

4.3. Long-run post-M&A stock performance

Having explored the lack of significance of employee satisfaction measures for a wide range of CAR regression specifications, we now adopt a more long-term perspective. We engage in a calendar-time portfolio regression involving acquirers as in Agrawal, Jeffrey and Mandelker (1992), Ikenberry, Lakonishok and Vermaelen (2000) and Moeller, Schlingemann and Stulz (2004). We choose the calendar-time approach over the event-time BHAR approach as it is less susceptible to bad model issue (Fama, 1998) and cross-sectional dependence in the abnormal returns of acquirers with overlapping holding periods (Mitchell and Stafford, 2000). In fact, even when the acquirer samples are not clustered over calendar time, their cross-sectional dependence can still exert a significant impact on the inference of our results (Brav, 2000). Although the calendar-time approach is shown to have a low power for detecting abnormal performance as it places equal weight on each calendar time period (Loughran and Ritter, 2000), we prefer to err on the side of caution. In any case, we also perform the event-time BHAR analysis in the Online Appendix as a robustness check, with no qualitative change to our main results.

We construct a portfolio of acquirers and rebalance at the end of each month, purchasing every acquirer firm that announced an M&A deal during that month. Each acquirer then remains within the portfolio for 12, 24 or 36 months before being dropped. Portfolios are thus rebalanced at the end of each calendar month, with the month-end market capitalization of all stocks either freshly entering or remaining in the portfolio as the weight for the value-weighted portfolios. We then construct two equal-sized subsample portfolios, containing acquirers with above- and below-median average employee satisfaction scores, respectively. We then construct a zero-cost portfolio with a long position on the high-satisfaction acquirers and the corresponding short position on the low-satisfaction ones. This is a major advantage in our setup compared to the BC list, which identifies only the “best-in-class” firms for employee relations, unlike our dataset which reveals both ends of the spectrum.

However, although this portfolio sorting method is least arbitrary, its use of an ex post conditioning variable gives rise to possible look ahead bias. Thus, in Section 5.2, we engage in other methods of portfolio sorting based on ex ante conditioning variables and show that our results are not driven by the look ahead bias.

As stated earlier, we opt for the Fama-French five-factor model in our main analysis, as the high- and low-satisfaction subsamples exhibit significant differences in investment ratios. While Carhart’s (1997) four-factor model has been more commonly used in previous studies, we must ensure that any long-term effect between high- and low-satisfaction subsamples are not driven by inherent differences

in firm-level investment characteristics.¹⁷ Nevertheless, to ensure direct comparability with previous literature, we also estimate and report the results from the Carhart four-factor model in Section O.3 in the Online Appendix.

Once again, we consider both the risk free rate and the industry-matched portfolio as two benchmark returns. For the case of industry-matched benchmark, this corresponds to a situation where every time an acquirer is added to the portfolio, one shorts an equal dollar value of the industry portfolio in which the acquirer is included.¹⁸ While the asset pricing literature does not predict industrial characteristics to be a driver of cross-sectional returns, we use the industry benchmark to be rigorous and conservative in our analysis. Finally, given that the variation in the number of acquirers comprising the portfolio for each calendar period may induce heteroscedasticity (Loughran and Ritter, 2000), we use the Newey-West (1987) standard errors robust to heteroscedasticity and autocorrelation.¹⁹

TABLE 6 HERE

Table 6 provides the core result of our long-term portfolio regression, with the portfolios sorted by the satisfaction scores averaged only over the current employee reviews. We restrict our attention to current employees, as their sentiments and perceptions are most likely to be crucial to the firm’s post-M&A integration and value generation (Guiso, Sapienza and Zingales, 2015).

Panel A of Table 6 presents the returns for the value-weighted portfolios. It is clear that a zero-cost portfolio with a long position on the high-satisfaction subsamples and a short position on the low-satisfaction subsamples is able to generate a statistically significant and economically meaningful five-factor alpha. Over the 24-month holding period, this zero-cost portfolio generates a five-factor alpha of 0.55% per month over the risk-free rate and 0.45% over the industry-matched benchmark return. In both cases, the alphas are significant at the 1% level, with the *t*-statistics close to 3.0. Most of this effect appears to emanate from the poor performance of low-satisfaction acquirers, with negative alphas significant at the 1% level. This is a major advantage of the Glassdoor dataset over the BC list; by capturing the dynamics of low-satisfaction firms in addition to the “best-in-class” firms, we obtain

¹⁷ Given that high-satisfaction firms tend to be more aggressive in terms of investment in our sample, it is highly unlikely that any evidence of a positive long-term drift in stock returns is driven by inherent differences in investment.

¹⁸ For the case of a high-low zero-cost portfolio, this involves double sorting; that is, whenever a high-satisfaction acquirer is purchased, we short its industry-matched portfolio, in contrast to shorting a low-satisfaction acquirer, which involves an equal long position on its industry-matched portfolio.

¹⁹ In untabulated analysis, we also perform weighted least squares regression, with the number of acquirers in the calendar-time portfolio each month as the weight, with no major qualitative change to the result.

richer results. Over the 36-month window, the economic magnitude declines, but the portfolio still generates an alpha of 0.5% above the risk-free rate and 0.4% above the industry-matched benchmark.

Panel B then demonstrates that the positive long-run drift in stock returns found in value-weighted portfolios mostly remains intact when we opt for the equal-weighted portfolios. Over the 24- and 36-month holding periods, the equal-weighted portfolio generates a five-factor alpha in excess of 0.4% per month over the risk-free rate and around 0.3% per month over the industry-matched benchmark. Although they are no longer significant at the 1% level, alphas over the risk-free rate are significant at the 5% level, and even against the industry-matched benchmark, statistical significance is comfortably retained at the 10% level. Once again, it appears the statistical and economic significance of portfolio alphas are the strongest at the 24-month horizon.

Table 6 considers only the satisfaction scores averaged over for current employees, i.e., the internal stakeholders who are directly affected by M&A deals. To check whether our results change when the former employee reviews are included in calculating the satisfaction scores, Table 7 re-estimates Table 6 while including the reviews of both current and former employees.

TABLE 7 HERE

Overall, Table 7 shows that the portfolios sorted on average satisfaction scores based on reviews by all current and former employees generate weaker statistical and economic significance. Nevertheless, the overall evidence of a positive long-term drift remains intact in most specifications. For example, at the 24-month holding-period horizon, the portfolio alphas in the value-weighted portfolios are still around 0.4% with a 10% significance level compared to the risk-free rate and a 5% level against the industry benchmark. Even for the equal-weighted portfolios, the alpha over the risk-free rate remains significant at the 10% level.

Although portfolios sorted on all reviews yield less prominent results than those using current employees only, it is not surprising given that some of these former employees are likely to have left the firm well beforehand. Thus, the employee satisfaction scores supplied by former employees may be less reflective of how the acquirer's employees feel about the firm at the time of the announcement. Nevertheless, a consistent presence of economically meaningful and significant portfolio alphas at the 24-month horizon strongly indicates that the prevailing level of employee satisfaction before M&A announcement is capable of generating a sizeable positive post-announcement drift in stock returns.

Nevertheless, given our small sample size, the portfolio returns are likely to be sensitive to outliers, and we must examine the robustness of our results against potential outliers. Table 8 shows the alphas

of zero-cost portfolios sorted on current employee satisfaction scores, with the portfolio returns (but not factor returns) winsorized at the 5% and 10% levels, respectively. We find that winsorizing the portfolio returns, be it at the 5% or 10% level, does not lead to any qualitative changes in our results for the portfolio alphas. Although the point estimates marginally decline, the statistical significance actually increases in certain instances; for example, the alpha on the equal-weighted portfolio against industry-matched benchmark becomes significant at the 5% level when 10% winsorization is imposed.

Overall, the strong indication of positive, long-run drift in stock returns drastically contrasts with the insignificant findings from the CAR regressions. Our results thus support the mispricing argument of Edmans (2011), namely the inherent difficulties faced by the investors in valuing intangible assets until they materialize as tangible performance results. Thus, our main empirical results are consistent with our third hypothesis, i.e., that the market requires more time to value the true benefits of employee satisfaction in the M&A context.

TABLE 8 HERE

4.4. Long-run portfolio analysis on sub-category satisfaction scores

Another benefit of the Glassdoor database is that employees are asked to rate their satisfaction on a number of sub-categories such as career opportunities and CEO approval. Some categories—namely culture and values as well as firm outlook—have been added to the list in 2012 and are thus not easy to utilize, the scores for the following five categories are reliably available for the entirety of our sample period, i.e., 2009-2015: (i) work-life balance, (ii) career opportunities, (iii) compensation and benefits, (iv) senior management, (v) CEO approval.

Portfolios formed on these sub-category scores allow us to highlight which aspects of the employee satisfaction are relevant for greater post-M&A synergy and shareholder wealth. More importantly, it also allows us to indirectly test for an alternative hypothesis, namely that the employee satisfaction is merely a proxy for the managerial ability. In other words, it may be that the strong positive alphas generated in Table 6 are due to the presence of capable managers who handle employee relations more smoothly and select better M&A deals. However, if this line of argument holds true, then it would be reasonable to expect that portfolio alphas would be even stronger if portfolios are formed on the sub-category scores for either senior management or CEO approval. Thus, portfolio analysis on the sub-category satisfaction scores allows us to identify the channels through which employee satisfaction contributes toward greater post-M&A shareholder wealth.

With this in mind, in Table 9, we re-run the calendar-time portfolio analysis in Table 6 using the average sub-category satisfaction scores of current employees during the 12-month window prior to the M&A deal announcement. As in Table 6, we use the sample median for each sub-category as the cut-off point.²⁰

TABLE 9 HERE

Table 9 reveals better career opportunities appear to be the primary driver of superior post-M&A stock performance among high-satisfaction acquirers. Crucially, portfolios sorted on CEO approval or senior management scores fail to generate statistically significant alphas. While it may be possible that capable managers may not necessarily garner higher satisfaction by the employees, the fact that the zero-cost portfolios sorted on senior management exhibit strong negative exposure to the book-to-market factor compared to their industry peers is an indication that the employees' satisfaction of their managers is likely to be broadly in line with the managerial ability.²¹ Thus, Table 9 provides some indirect evidence against the managerial ability hypothesis.

Above all, Table 9 shows that how satisfied employees feel about their existing career opportunities regarding promotions and their future career credentials prior to the M&A deal appear to be particularly important in enhancing post-M&A synergy. This is not surprising given that M&As can potentially disrupt the career prospects of the acquirers' employees, with more fierce competition for lucrative promotion posts and the possibility of being asked to oversee a difficult integration process. In fact, Mathieu and Zajac (1990) show that internal career prospects have a strong effect on the employees' level of organizational commitment as well as their job satisfaction, both of which in turn affects their turnover-related (i.e., job departure or job search) intentions. Given the critical importance of employee retention on post-M&A integration and synergies, we contend that this is an important channel through which the intangible nature of employee satisfaction materializes into tangible shareholder wealth. If this line of reasoning holds true, an acquirer that offers satisfactory system of internal upward mobility is likely to benefit from a smoother and better post-M&A transition.

²⁰ In untabulated analysis, we also perform backtesting with the conditioning variable available ex ante to the investor at the time of the M&A deal announcement in the identical manner to the variable utilized in Table 13 in Section 5.2. We find that the results remain qualitatively unchanged.

²¹ In fact, zero-cost portfolios formed on other sub-categories also exhibit predictable factor exposures; acquirers with good work-life balance have strong negative exposure to the profitability factor and large acquirers have higher employee satisfaction on the compensation and benefits front, as expected.

5. Discussion

Despite the short time frame and small number of observations, we perform a number of robustness checks to test the validity of our main results. In this section, we engage in a set of further analyses to check whether the positive long-run drift in stock returns is robust against alternative explanations and specifications.

5.1. Long-run portfolio performance of matching non-acquirer portfolios

The empirical findings thus far indicate that employee satisfaction is a valuable intangible asset to long-run shareholder wealth, particularly in the M&A context. However, two natural questions arise. First, how relevant is the M&A context in generating this long-run drift in stock returns? Can all firms with a high level of employee satisfaction generate superior stock market performance, even those that do not engage in acquisitions? Second, is employee satisfaction really the main driver of our results? Can firms sharing similar characteristics with our high- and low-satisfaction acquirers from the balance sheet perspective generate similarly positive stock performance? This is crucial both for our first and second hypotheses regarding the value implications of employee satisfaction as well as the relevance of the M&A context.

To address these concerns, we perform matching-firm portfolio analyses (Heckman, Chimeras and Todd, 1997; 1998). We engage in two matching procedures. First, we pair each acquirer in our sample with a non-acquirer with similar firm characteristics while disregarding any information on employee satisfaction. Specifically, we perform propensity score matching with the nearest neighbor method (without caliper length restriction) for each firm-year observation among our acquirers using firm size, book leverage, book-to-market and industry dummies on the first two digits of the SIC code. We impose exact matching on calendar year by running propensity score matching separately for each year. Then, whenever an acquirer announces an M&A, we construct a counterfactual portfolio that purchases the matched non-acquirer at the end of the announcement month and retain it within the portfolio for a specified holding period of 12, 24 or 36 months. For example, Apollo Education Group's 2011 fiscal year financial data are matched to DeVry Education Group's 2011 data, so whenever Apollo—a low-satisfaction acquirer in our sample—announces a deal during 2011, our matched non-acquirer portfolio shorts DeVry instead.

Second, we perform the same matching procedure but now with the current employees' average satisfaction score as an additional variable when calculating the propensity score. There are several

possibilities. First, if employee satisfaction is altogether irrelevant for long-term asset pricing, and if the positive long-run drift found in Section 4 is merely an artifact of firm-level characteristics, then a similar pattern should emerge in both matched portfolios. This would contradict our first hypothesis regarding the value implications of employee satisfaction. Second, if employee satisfaction results in superior long-run stock performance, but its effect is similar for acquirers and non-acquirers alike, then the matched non-acquirer portfolio that utilizes employee satisfaction during the matching procedure should yield positive alphas, but not when employee satisfaction is disregarded during the matching process, generating a divergent result. If so, this would run counter to our second hypothesis, namely that the effect of employee satisfaction would be stronger during major structural shifts, i.e., M&As. Third, if the effect of employee satisfaction is particularly strong around M&As, as we posit in this study, then the economically and statistically significant portfolio alphas found in Section 4 cannot be replicated using the matched portfolios. Table 10 presents our results testing these various conjectures.

TABLE 10 HERE

In general, Table 10 supports our two hypotheses. None of the matched non-acquirer portfolios are capable of generating significantly positive alphas. In fact, for the zero-cost non-acquirer portfolio matched only in terms of firm-level financial characteristics, we find that the point estimates are almost always negative and of substantial magnitudes in certain instances, particularly when the portfolios are equal-weighted.²²

Furthermore, the zero-cost non-acquirer portfolio that uses employee satisfaction in the matching process does not perform better either. For value-weighted portfolios, the point estimates and statistical significance of two matched non-acquirer portfolios are similar, and for the case of equal-weighted portfolios, the zero-cost portfolios that include employee satisfaction scores for matching perform marginally better than the one matched exclusively based on firm characteristics. In any case, the positive long-run drift result found in Section 4.3 cannot be replicated using either of these matched portfolios, highlighting the joint importance of both employee satisfaction and the M&A context. The results show that M&As are indeed the right context to unveil the effect of employee satisfaction on firm value through its role in value creation during post-M&A integration.

²² For a small number of public targets for which we have sufficient information on their pre-merger operating performance, we also check whether the high- and low-satisfaction merged entities exhibit different post-merger operating performance relative to their matched non-acquirers in Appendix A.4. Despite the small number of samples, we find that the results are broadly in line with the portfolio analysis presented in this section, with mergers initiated by high-satisfaction acquirers resulting in superior post-merger performance.

5.2. Other alternative explanations

We perform an extensive list of further robustness tests to rule out potential alternative explanations. First, inherent differences in deal characteristics between the high- and low-satisfaction subsamples may be behind this positive long-run drift in stock returns. Although the acquirer-level characteristics should be captured mostly through the five-factor model and our matching portfolio analysis earlier in this section, high- and low-satisfaction subsamples may still exhibit differences in deal characteristics. Most importantly, a small number of acquirers in our sample, referred to as “serial acquirers,” engage in a large number of acquisitions, with Google and Cisco engaging in more than 10 acquisitions that meet our criteria during the sample period. To demonstrate that these serial acquirers do not drive our results, we exclude any deal made by an acquirer with more than 5 acquisitions during the sample period and re-estimate the portfolios in Table 6.²³

Moreover, a quick re-examination of Panel B in Table 1 reveals that the high- and low-satisfaction subsamples differ on a number of deal characteristic dimensions. More specifically, high-satisfaction subsample contains a significantly higher proportion of smaller deals, acquisition of subsidiaries, and international deals. As a small-sized deal or the purchase of a subsidiary can be a less disruptive activity, it is possible that the positive long-run drift in stock returns found in Section 4 may be driven by the higher presence of these inherently “less disruptive” deals. Some may make a similar argument for international deals, as they are less likely to be visible within the context of day-to-day environments and thus may cause fewer disruptions than a deal involving a domestic counterpart.

In Table 11, we replicate the long-run performance of zero-cost portfolios in Table 6 while excluding all observations that we classify as either (i) made by a serial acquirer with more than 5 acquisitions during the period, (ii) small deals less than 1% of the acquirer’s market capitalization, (iii) acquisition events, or (iv) international deals.

TABLE 11 HERE

Table 11 suggests that our results are not entirely driven by the presence of serial acquirers. When the deals made by serial acquirers are excluded, the results remain broadly similar, with the portfolio alphas on the value-weighted zero-cost portfolios similar in point estimates to Table 6, and statistical significance retained at the 5% level over the 24-month horizon in all but one instance. The results

²³ In untabulated analysis, we change the cut-off point for the serial acquirer to 10 acquisitions. The results remain largely unchanged.

become even stronger over the 36-month horizon, particularly in terms of statistical significance.

Our qualitative results also remain robust when we exclude small deals less than 1% of the acquirer's equity values. We find that, over the 24-month holding period, the point estimates on both value- and equal-weighted cases actually increase as a result of exclusion. In particular, for the value-weighted portfolios, the alphas are now 0.7% above the risk-free rate and 0.6% above the industry-matched benchmark, with statistical significance at the 10% level. We obtain even stronger results over the 36-month horizon. Although the statistical significance is lost when the portfolios are weighted equally, this indicates the variations in deal size alone cannot account for the long-run drift.

Zero-cost portfolios excluding acquisition events similarly generate significant results. Over the 24-month horizon, the alpha is around 0.6% above the risk-free rate for the value-weighted case, with the statistical significance at the 5% level. The point estimate becomes 0.4% above the risk-free rate when the portfolio is weighted equally, with statistical significance maintained at the 10% level. However, in both instances, the portfolio alphas become insignificant when compared with the industry-matched benchmark. Thus, the results become marginally weaker when these acquisition events are excluded.

Our results remain intact even when we focus on domestic deals only. Over the 24-month horizon, the point estimates on portfolio alphas increase substantially when the portfolios are value-weighted, the statistical significance at the 5% level against risk free rate and 10% level against the industry benchmark. The point estimates for the equal-weighted cases are similar to Table 6, with statistical significance at the 10% level. On the whole, Table 11 shows that, although the inherent differences in deal-level characteristics between the high- and low-satisfaction subsamples may partially contribute to the long-run drift in stock returns, their variations are insufficient in completely ruling out the long-run effect of employee satisfaction on the stock market performance of the acquiring firms.

Second, our choice of the Fama-French five-factor model as the asset pricing model may be called into question, given that the dominant majority of the existing literature opts for the Carhart (1997) four-factor model instead. However, further analysis in the Online Appendix using the four-factor model reveals that both the magnitude and statistical significance of portfolio alphas remain intact.

Third, it is unlikely that our result is driven by the over-investment problem arising from excess free cash flow. Suppose that a firm with a higher-than-usual free cash flow is able to foster higher employee satisfaction through generous benefit packages and optimistic atmosphere. If so, employee satisfaction would be a mere proxy for excess free cash flow. However, if this is the case, an M&A initiated by a high-satisfaction-score firm should be more susceptible to the over-investment problem and should therefore be subject to a negative—rather than positive— long-run drift in stock returns. This is,

however, the opposite of what we find.

Fourth, while we cannot rule out the possibility of high employee satisfaction scores being a proxy for better corporate governance, we are skeptical of this line of reasoning. There is little univariate difference in the G-Index scores between the high- and low-satisfaction subsamples, indicating that the corporate governance between these subsamples may not be so different on average. After all, there is no clear-cut link between employee satisfaction and corporate governance. For example, we observe numerous instances, particularly among startup firms with “visionary” founders, where a firm scores rather poorly on corporate governance indicators but high on employee satisfaction.

Fifth, the positive long-run drift found in our paper may arise from an increase in demand by the SRI funds experiencing inflows, as their investment mandates are often restricted to firms with a satisfactory track record of employee relations. However, when considering whether to include a stock in an SRI fund, the fund manager often refers to more visible measures of employee relations and CSR measures, such as the BC list or KLD scores. Thus, if the positive long-run drift result is due to the excess demand by the SRI funds stemming from abnormal inflows, then the portfolio alphas should become even stronger when we sort the acquirers along these visible measures of employee relations. However, Table 12 shows that this is far from the case. Zero-cost portfolios sorted on either the KLD Employee Relations score or the BC list are insignificant, with a sizeable majority of point estimates actually exhibiting a negative sign. This tells us that the stock market’s positive long-term response is probably not driven by the demands of SRI funds.

TABLE 12 HERE

Sixth, given that the calendar-time approach in Section 4.2 constructs zero-cost portfolios based on an ex post conditioning variable, namely the sample median computed over the entire sample period, concerns arise over possible look ahead bias. To alleviate this concern, we re-organize the acquirers into high- and low-satisfaction subsamples based on a cut-off point that may be utilized by the traders at the time of the deal announcement. Given that our acquirer sample is small and spans a relatively short time period, however, any ex ante conditioning variable that utilizes only the satisfaction scores of the acquirers induces substantial noise for the early part of the sample period. Thus, we address the potential look ahead bias concern as follows. For each firm, we calculate average satisfaction score—either over all reviews or current employee reviews only—each quarter with two-year moving average window.²⁴ In other words, we average the reviews posted within the two year window ending at the

²⁴ The results remain qualitatively unchanged if we change the moving average window to one or three years.

current quarter-end. For each quarter, we then calculate the median of these firm-level moving-average satisfaction scores for our universe of S&P 500 firms. We then classify an acquirer announcing in quarter q as a high-satisfaction acquirer if its 12-month average satisfaction score is above this S&P 500 median score for the quarter $q - 1$. We form zero-cost portfolios based on this method and re-run our estimations in Tables 6 and 8. Table 13 presents our estimation results.

TABLE 13 HERE

Table 13 shows that the qualitative results remain mostly intact even when we form our portfolios with ex ante conditioning variable. Zero-cost portfolios sorted on the average satisfaction scores of the current employees continue to yield alphas of meaningful magnitudes at the 24-month horizon. The statistical significance is retained at the 5% level either when the portfolio is value-weighted and compared to industry benchmark, or when it is equal-weighted against risk free rate. Similar patterns emerge when the returns are winsorized at the 5% level. The main reason for this is that classifying the acquirers based on ex ante or ex post conditioning variables does not lead to a major change in the portfolio composition, with over 85% of the sample classified into the same subsample portfolios regardless of the classification method. Therefore, the significance of alphas in our calendar-time analysis seems unlikely to be driven by the look ahead bias.

Finally, although we utilize both the risk free rate and industry-matched portfolio as benchmarks for the portfolio analysis, there may still be concerns over the fact that the effect of employee satisfaction on post-M&A acquirer stock performance is driven by discrepancies in the industrial composition of high- and low-satisfaction subsamples. In particular, it is possible that software and other high tech firms are more conscious of how employees feel about their firms, and the demographics of Glassdoor users is skewed toward young workers, leading to a possible over-representation of high tech firms in the high-satisfaction acquirer subsample. Thus, in Online Appendix, we perform two further analyses to alleviate these remaining concerns. First, high- and low-satisfaction acquirer portfolios are formed separately for each broad industrial sector. Second, subsample portfolios are also formed separately for high tech and non-high tech industries. While there are some discrepancies in the alpha estimates for different industrial sectors, we fail to find any evidence that high tech firms are the primary drivers of the superior stock performance witnessed among high-satisfaction acquirers.²⁵

²⁵ In a further untabulated analysis, we re-estimate Tables 6 and 8 excluding the financial and utilities industry as in Deng, Kang and Low (2013). Regardless of portfolio weighting method or benchmark used, five-factor alphas are significant at 10% level over 24-month horizon. In addition, portfolio alphas increase in both statistical and economic magnitudes over 36-month horizon, suggesting that these industries are unlikely to be the key driver of the baseline model's long-run drift.

5.3. Long-run event-time BHAR approach

Until now, we focused on calendar-time portfolio approach to examine long-run stock performance of acquirers given its distinct advantages in the face of the bad model problem and cross-sectional dependence issues. However, in light of the extensive methodological debate over how to measure the long-run performance of acquirers, we also check in Online Appendix whether the high- and low-satisfaction acquirers significantly differ in their event-time BHARs. We engage in both simple two-sample tests of difference as well as OLS regressions of 36-month BHAR on a similar variable set up to Table 4. We find that the overall satisfaction score of current employees has a significantly positive impact on 36-month BHAR, both in terms of statistical and economic magnitudes.

5.4. Managerial implications

Our finding of the positive effect of employee satisfaction on long-run stock performance following M&A deals has a number of interesting managerial implications. A firm's employee satisfaction score is highly visible and easily accessible from the Glassdoor website; specifically, the summary statistics are neatly organized at the firm level, and there are clear graphics for the time-series trend. Our study demonstrates that these easily accessible statistics have a rather substantial influence on shareholder value. They provide valuable and unique insights into how employees truly feel about their firms, are free of charge and are open to employees, firms and investors alike. However, such valuable information has not been used by stock market participants to evaluate a firm's important investment activities, i.e., M&As. Our study explores the possibility of unveiling the true importance of employee satisfaction as a firm's invisible yet fully used asset that the investor community has neglected to date. It offers managers a valuable opportunity to listen to the "silent voices" of their employees that they may not hear otherwise.

This study further highlights the difference between internal stakeholder assessments and other firm evaluations emanating from external stakeholder perspectives. Table 12 shows that the zero-cost portfolios sorted on the KLD Employee Relations score or the BC list inclusion dummy do not lead to a similar long-run drift. Unlike the employee satisfaction scores on Glassdoor.com, the KLD scores and BC list are not the direct results of uninhibited, voluntarily supplied employee evaluations. The KLD scores consist of a third-party evaluation of an extensive checklist of CSR activities. The Great Places to Work Institute similarly conducts surveys for the BC list when firms apply for consideration, potentially compromising the employees' ability to express their true opinions. Thus, unlike the employees' voluntary disclosures, these alternative evaluations of employee relations may not capture

the employees' candid perceptions of their firms' values and culture.

Thus, this study has important implications for managers. Above all, it reveals the importance of listening to employees' honest assessments when pursuing management strategies. Even a quick, cursory scan of the reviews posted in the immediate aftermath of an announcement will give managers much food for thought. They should realize that they cannot achieve their strategic goals, as in the case of M&As, if they do not have their current employees on board. If employees are not brought into the strategies, synergy is impossible. If managers wish to retain key personnel, protect positive elements of the current corporate culture and encourage their employees to remain motivated, being attentive to their advice and recommendations in the reviews and taking the requisite measures would be a good starting point.

6. Conclusion

This study finds that firms with high employee satisfaction generate superior long-run stock market performance following the announcement of M&As. It further highlights the stock market fails to fully incorporate the positive effect of employee satisfaction upon announcement, leading to a significant long-run drift in stock returns. Even after correcting for the factor risks and possible industry-driven effects, a zero-cost portfolio with a long position on acquirers with high employee satisfaction scores and a short position on those with low employee satisfaction scores yields a significant portfolio alpha, a finding robust to a wide range of specifications and robustness checks. This stands in stark contrast with the previous works that examine the impact of CSR on post-M&A stock performance, which report stronger short-run announcement effect. Thus, the internal stakeholders' own perceptions of how they feel about their firms are key intangible assets whose value the capital market does not yet fully comprehend. Moreover, matched zero-cost portfolios on high- and low-satisfaction non-acquirers fail to yield alphas of comparable statistical or economic significance, demonstrating the importance of M&As as an empirical context in which employee satisfaction can significantly affect firm value through the post-M&A integration process. In short, our findings suggest that the power of employee satisfaction is particularly evident within a focused context of mergers.

This study thereby highlights the importance of internal stakeholders and particularly employees in enhancing shareholder value. Although intangible at first, a firm's investment in the employee relationship gradually materializes and pays off in the form of increased shareholder wealth. Thus, even in the potentially disruptive aftermath of M&As, only the acquiring firms that succeed in motivating their employees to "stay on board" can weather the storm and set sail into an uncertain

future. In this way, people are indeed the most valuable asset of a firm, making the saying much more than just rhetoric. This raises a new set of interesting managerial questions for board members and CEOs, along with the wider investor community, regarding how to foster a satisfactory and motivating environment for employees when pursuing strategic investments such as M&As. It is time to listen to the silent voices of the employees.

Appendix: Variable descriptions

Table A.1 outlines in detail how each variable used in our empirical analysis is constructed. We also denote the CRSP/Compustat identifier in WRDS wherever appropriate.

TABLE A.1 HERE

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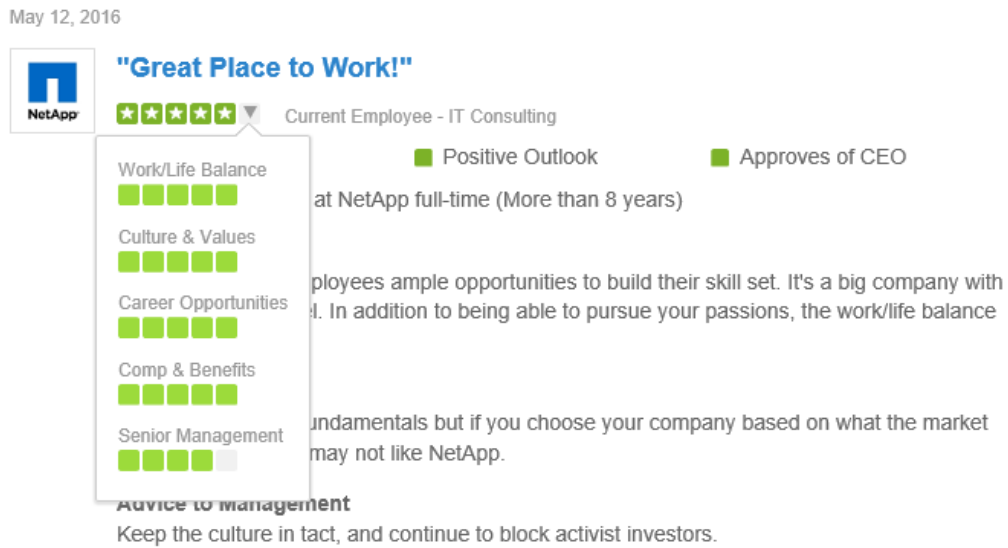
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Figure 1. An example of employee reviews posted on Glassdoor.com (for NetApp)

Image taken from <https://www.glassdoor.com/Reviews/NetApp-Reviews-E5406.htm>, on May 18, 2016

Panel A. Individual-level review



Panel B. Firm-level summary statistics



Table 1. Sample distribution and summary statistics

The table presents the distribution of our final deal samples by year and the industry in which the acquirer operates. Our final sample consists of 284 mergers and acquisition events initiated by 119 S&P 500 firms between June 2009 and October 2015. The sample is collected from the SDC Platinum database, with the following set of screens: (1) the acquirer must be in the CRSP and Compustat database, (2) the deal value is reported in the SDC Platinum database and exceeds \$1 million, (3) the deal is successfully completed, (4) the acquirer holds less than 50% of shares in the target prior to the deal and 100% afterwards, and (5) the acquirer must have received at least five reviews in Glassdoor in the 12-month window prior to the M&A announcement. For the definition of each variable used in our analysis, please refer to Table A.1 in the Appendix. *** denotes significance at the 1% level, ** at the 5% level, * at the 10% level respectively.

Panel A. Sample distribution by year and industry

Year	Acquirer industry (first two digits of the SIC code)							Total
	Mining and construction (10-17)	Manufacturing (20-39)	Transport and communications (40-48)	Utilities (49)	Wholesale and retail trade (50-59)	Finance, insurance and real estate (60-69)	Services (70-89)	
2009	0	17	0	0	1	2	4	24
2010	0	15	2	0	5	11	13	46
2011	0	14	3	4	1	3	13	38
2012	1	16	2	0	3	3	10	35
2013	0	8	3	0	2	7	9	29
2014	0	24	6	2	1	11	14	58
2015	2	24	7	1	6	8	6	54
Total	3	118	23	7	19	45	69	284

Panel B. Summary statistics

Variable	Full sample	Satisfaction score subsample		
		High overall satisfaction	Low overall satisfaction	Test of difference
		Mean	Mean	Mean
Glassdoor Data (Pre-12M)				
<i>(Total Sample)</i>		N=142	N=142	
Number of reviews	190.55	253.30	127.80	125.50***
Overall satisfaction	3.244	3.595	2.893	0.702***
Work-life balance	3.375	3.597	3.153	0.444***
Career opportunities	3.036	3.285	2.786	0.499***
Compensation and benefits	3.490	3.717	3.262	0.456***
Senior management	2.908	3.200	2.616	0.583***
CEO approval	0.327	0.454	0.159	0.336***
<i>(Current-Employee Only Subsample)</i>		N=134	N=133	
Number of reviews	126.27	164.32	87.92	76.40***
Overall satisfaction	3.354	3.740	2.966	0.773***
Work-life balance	3.477	3.688	3.264	0.423***
Career opportunities	3.137	3.415	2.856	0.559***
Compensation and benefits	3.500	3.768	3.231	0.537***
Senior management	3.011	3.358	2.663	0.695***
CEO approval	0.405	0.611	0.198	0.413***
Firm characteristics (For the full sample)				
		N=142	N=142	
Herfindahl-Hirschman Index (x100)	5.636	5.012	6.260	-1.247**
Log asset	10.294	10.647	9.941	0.705***
Tobin's Q	2.151	2.368	1.935	0.433***
Market leverage	0.154	0.136	0.172	-0.037**
Free cash flow	0.062	0.063	0.062	0.001
Previous market-adjusted return	0.038	0.028	0.049	-0.021
R&D ratio	0.033	0.041	0.024	0.017***
Investment ratio	0.221	0.248	0.195	0.052***
Adjusted KLD CSR score	0.498	0.641	0.353	0.288**
G-Index	9.110	9.112	9.108	0.004
Adjusted KLD Employee Relations score	0.116	0.203	0.025	0.178***
Fortune BC list dummy	0.169	0.331	0.007	0.324***
Deal Characteristics (For the full sample)				
		N=142	N=142	
Industry M&A	0.069	0.063	0.074	-0.011
Relative deal size	0.090	0.049	0.130	-0.082***
Diversification dummy	0.465	0.507	0.423	0.085
High tech dummy	0.285	0.317	0.254	0.063
Tender offer dummy	0.063	0.063	0.063	0.000
Cash only dummy	0.694	0.711	0.676	0.035
Stock deal dummy	0.151	0.162	0.141	0.021
Public target dummy	0.243	0.225	0.261	-0.035
Acquisition event dummy	0.180	0.225	0.134	0.092**
Financial industry dummy	0.162	0.148	0.176	-0.028
International dummy	0.279	0.333	0.225	0.108**

Firm characteristics (Subsamples sorted on current employee scores only)				
		N=134	N=133	
Herfindahl-Hirschman Index (x100)	5.727	5.099	6.360	-1.261*
Log asset	10.359	10.556	10.161	0.395**
Tobin's Q	2.179	2.432	1.924	0.507***
Market leverage	0.149	0.131	0.167	-0.037**
Free cash flow	0.063	0.061	0.066	-0.004
Previous market-adjusted return	0.038	0.038	0.037	0.001
R&D ratio	0.034	0.043	0.025	0.018***
Investment ratio	0.227	0.260	0.193	0.067***
Adjusted KLD CSR score	0.536	0.665	0.404	0.262**
G-Index	9.142	9.337	8.962	0.374
Adjusted KLD Employee Relations score	0.129	0.227	0.026	0.201***
Fortune BC list dummy	0.180	0.336	0.023	0.313***
Deal characteristics (Subsamples sorted on current employee scores only)				
		N=134	N=133	
Industry M&A	0.066	0.068	0.064	0.004
Relative deal size	0.087	0.063	0.111	-0.048
Diversification dummy	0.468	0.493	0.444	0.049
High tech dummy	0.300	0.336	0.263	0.073
Tender offer dummy	0.067	0.067	0.068	-0.001
Cash only dummy	0.693	0.679	0.707	-0.028
Stock deal dummy	0.154	0.179	0.128	0.051
Public target dummy	0.247	0.231	0.263	-0.032
Acquisition event dummy	0.176	0.216	0.135	0.081*
Financial industry dummy	0.161	0.149	0.173	-0.024
International dummy	0.267	0.316	0.218	0.098*

Table 2. BC list portfolio analysis: Replicating Edmans (2011)

In this table, we present the calendar-time portfolio analysis of (i) all public firms included in the BC list and (ii) a subsample of S&P 500 firms listed in the BC list using the identical methodology to Edmans (2011). Raw portfolio returns are used. The BC list portfolio is rebalanced each year on February 1, taking into account of the Fortune magazine's latest announcement of BC list, then all firms remain in the portfolio until January 31 of the following year. Excess returns are calculated either over (i) risk-free rate or (ii) industry-matched portfolio using the Fama-French 49 industry classification. For value-weighted portfolios, value-weighted industry returns are used, while equal-weighted industry returns are used as benchmark for equal-weighted portfolios. Monthly regressions use either (i) Fama-French (2015) five-factor model involving *MKT*, *SMB*, *HML*, *RMW* and *CMA* factors, or (ii) Carhart (1997) four-factor model that replaces *RMW* and *CMA* factors with the *UMD* factor. We use Newey-West (1987) heteroscedasticity- and autocorrelation-robust standard errors. All returns are in percent. *** denotes significance at the 1% level, ** at the 5% level, * at the 10% level respectively.

Panel A. Fama-French five-factor model

	All public firms								S&P 500 subsample							
	Excess return over risk free rate				Excess return over industry benchmark				Excess return over risk free rate				Excess return over industry benchmark			
	Equal-Weighted		Value-Weighted		Equal-Weighted		Value-Weighted		Equal-Weighted		Value-Weighted		Equal-Weighted		Value-Weighted	
	Coeff.	St. Err.	Coeff.	St. Err.	Coeff.	St. Err.	Coeff.	St. Err.	Coeff.	St. Err.	Coeff.	St. Err.	Coeff.	St. Err.	Coeff.	St. Err.
α	0.025	0.107	-0.202	0.229	-0.089	0.150	-0.209	0.168	0.001	0.144	-0.191	0.248	-0.092	0.198	-0.185	0.183
β_{MKT}	1.072***	0.027	1.179***	0.064	0.124***	0.030	0.082*	0.042	1.157***	0.043	1.195***	0.067	0.204***	0.049	0.095**	0.043
β_{SMB}	0.176**	0.067	-0.215**	0.081	-0.477***	0.065	-0.203***	0.048	0.019	0.064	-0.263***	0.081	-0.633***	0.073	-0.254***	0.049
β_{HML}	0.114	0.085	0.206*	0.110	-0.142*	0.076	0.221**	0.087	0.233**	0.114	0.231**	0.114	-0.057	0.104	0.246***	0.090
β_{RMW}	0.185*	0.095	0.234	0.209	0.312***	0.096	0.198	0.146	0.212*	0.113	0.223	0.214	0.318***	0.095	0.181	0.148
β_{CMA}	-0.318***	0.083	-0.656***	0.203	-0.130	0.111	-0.342**	0.162	-0.558***	0.153	-0.710***	0.212	-0.298**	0.143	-0.381**	0.169
Adj. R ²	0.943		0.857		0.599		0.149		0.923		0.847		0.574		0.178	
Obs.	77		77		77		77		77		77		77		77	

Panel B. Carhart four-factor model

	All public firms								S&P 500 subsample							
	Excess return over risk free rate				Excess return over industry benchmark				Excess return over risk free rate				Excess return over industry benchmark			
	Equal-Weighted		Value-Weighted		Equal-Weighted		Value-Weighted		Equal-Weighted		Value-Weighted		Equal-Weighted		Value-Weighted	
	Coeff.	St. Err.	Coeff.	St. Err.	Coeff.	St. Err.	Coeff.	St. Err.	Coeff.	St. Err.	Coeff.	St. Err.	Coeff.	St. Err.	Coeff.	St. Err.
α	0.041	0.119	-0.203	0.244	-0.061	0.154	-0.193	0.173	0.039	0.162	-0.199	0.263	-0.046	0.211	-0.176	0.185
β_{MKT}	1.047***	0.024	1.140***	0.061	0.104***	0.031	0.056	0.041	1.115***	0.037	1.155***	0.063	0.171***	0.049	0.069	0.043
β_{SMB}	0.145**	0.058	-0.244***	0.069	-0.561***	0.052	-0.236***	0.046	0.009	0.053	-0.286***	0.070	-0.697***	0.073	-0.281***	0.049
β_{HML}	-0.079*	0.043	-0.164*	0.091	-0.224***	0.066	0.016	0.062	-0.126**	0.062	-0.164	0.099	-0.260***	0.082	0.024	0.069
β_{UMD}	-0.037	0.054	-0.071	0.082	0.050	0.052	-0.038	0.045	-0.139**	0.063	-0.077	0.086	-0.034	0.058	-0.041	0.049
Adj. R ²	0.937		0.842		0.558		0.097		0.918		0.831		0.537		0.131	
Obs.	77		77		77		77		77		77		77		77	

Table 3. Acquirers' average cumulative abnormal returns (CARs) around announcement dates

The table reports the average cumulative abnormal returns around the announcement dates for our final sample of 284 M&A deals. For more information about the screens used for the construction of final sample, please refer to the explanations provided in Table 1. CARs are calculated using the market model beginning 200 trading days prior to the announcement and ending 11 trading days beforehand, with the CRSP value-weighted return used as the proxy for market return. ***denotes significance at the 1% level, ** at the 5% level, * at the 10% level respectively.

CARs (in percent)	Scores on all employees				Scores on current employees only			
	Full sample	High overall satisfaction (N=142)	Low overall satisfaction (N=142)	Test of difference	Full sample	High overall satisfaction (N=134)	Low overall satisfaction (N=133)	Test of difference
CAR(-5,5)	0.091	0.216	-0.034	0.250	0.089	0.027	0.152	-0.125
CAR(-2,2)	0.238	0.109	0.367	-0.258	0.266	0.079	0.455	-0.376
CAR(-1,1)	0.489	0.602	0.377	0.225	0.519	0.669	0.368	0.300

Table 4. Regressions of acquirer CAR(-1, 1) on the acquiring firms' explanatory variables

Panels A to C of this table reports the results from OLS and 2SLS regressions of acquirer CARs around the announcement dates on overall employee satisfaction scores and other control variables for our final sample of 284 M&A deals. For a detailed explanation about how each control variable is constructed, please refer to Table A.1. For more information about the screens used for the construction of final sample, please refer to the explanation provided in Table 1. CARs are calculated using the market model beginning 200 trading days prior to the announcement and ending 11 trading days beforehand, with the CRSP value-weighted return used as the proxy for market return. The first two digits of the acquirer's SIC code are used to control for the industry fixed effect. Year dummies are included in all regressions. For the case of 2SLS regressions, the ratio of the number of current employee reviews to the number of all employee reviews (current-all ratio) is used for the analysis. Standard errors are robust to heteroscedasticity and acquirer-clustered, and all variables are winsorized at 5% level. Standard errors are reported in parentheses. ***denotes significance at the 1% level, ** at the 5% level, * at the 10% level respectively.

Panel A. OLS regressions with satisfaction scores from all employee reviews

Variable	OLS: Satisfaction scores from all employee reviews								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Overall satisfaction	0.144 (0.790)	0.015 (0.785)	-0.910 (0.732)						
<i>Sub-categories</i>									
Work-life balance				0.293 (0.685)					1.090 (0.865)
Career opportunities					-0.299 (0.902)				0.556 (1.426)
Comp. and benefits						-0.295 (0.762)			-0.159 (0.932)
Senior management							-0.609 (0.782)		-2.129 (1.517)
CEO approval								-0.179 (1.113)	0.947 (1.409)
<i>Firm level variables</i>									
Adjusted CSR		0.061 (0.263)	0.249 (0.266)	0.044 (0.270)	0.058 (0.261)	0.076 (0.261)	0.079 (0.264)	0.065 (0.266)	0.052 (0.273)
G-Index			-0.145 (0.099)						
Herfindahl Index	0.181 (0.130)	0.161 (0.141)	0.424** (0.170)	0.162 (0.140)	0.158 (0.144)	0.156 (0.146)	0.162 (0.145)	0.159 (0.143)	0.183 (0.145)
Firm size	-0.039 (0.303)	-0.117 (0.291)	-0.005 (0.296)	-0.127 (0.266)	-0.088 (0.291)	-0.090 (0.269)	-0.053 (0.281)	-0.106 (0.273)	-0.030 (0.284)
Market leverage	0.036 (0.028)	0.041 (0.028)	0.091*** (0.033)	0.045 (0.030)	0.040 (0.028)	0.039 (0.029)	0.037 (0.028)	0.040 (0.028)	0.046 (0.031)
Free cash flow	-0.094 (0.066)	-0.110* (0.065)	-0.214** (0.109)	-0.103* (0.060)	-0.119* (0.069)	-0.120* (0.067)	-0.128* (0.066)	-0.113* (0.065)	-0.122* (0.067)
Tobin's Q	0.887 (0.553)	0.968* (0.523)	2.167*** (0.790)	0.955** (0.449)	1.033* (0.535)	1.014** (0.457)	1.107** (0.509)	0.997* (0.527)	1.159** (0.562)
Previous market-adjusted return	-0.019 (0.015)	-0.024 (0.015)	-0.023 (0.018)	-0.023 (0.015)	-0.025 (0.015)	-0.024 (0.015)	-0.025* (0.015)	-0.024 (0.015)	-0.024 (0.015)
<i>Deal characteristics</i>									
Relative deal size	0.061* (0.035)	0.077** (0.033)	0.024 (0.035)	0.076** (0.034)	0.077** (0.033)	0.077** (0.033)	0.078** (0.033)	0.077** (0.033)	0.078** (0.032)

Industry M&A	-0.029 (0.053)	-0.035 (0.053)	-0.027 (0.066)	-0.032 (0.051)	-0.042 (0.055)	-0.039 (0.054)	-0.043 (0.052)	-0.036 (0.052)	-0.035 (0.056)
High tech dummy	0.685 (0.472)	0.633 (0.461)	0.699 (0.518)	0.616 (0.454)	0.646 (0.459)	0.641 (0.454)	0.676 (0.462)	0.634 (0.454)	0.693 (0.464)
Diversification dummy	-0.767 (0.491)	-0.601 (0.478)	-0.502 (0.551)	-0.581 (0.482)	-0.595 (0.483)	-0.622 (0.480)	-0.626 (0.479)	-0.602 (0.482)	-0.634 (0.492)
Public target dummy	1.042 (0.709)	0.847 (0.684)	0.705 (0.617)	0.844 (0.677)	0.843 (0.687)	0.834 (0.693)	0.814 (0.694)	0.837 (0.687)	0.775 (0.696)
Cash only dummy	0.322 (0.472)	0.161 (0.423)	-0.092 (0.450)	0.153 (0.419)	0.173 (0.417)	0.163 (0.412)	0.167 (0.412)	0.158 (0.410)	0.147 (0.405)
Stock deal dummy	-0.648 (1.025)	-1.087 (0.977)	0.611 (1.126)	-1.034 (0.998)	-1.096 (0.980)	-1.091 (0.982)	-1.108 (0.969)	-1.073 (0.967)	-1.020 (0.964)
Tender offer dummy	-3.353*** (1.130)	-3.266*** (1.124)	-1.800 (1.100)	-3.218*** (1.094)	-3.298*** (1.108)	-3.279*** (1.098)	-3.359*** (1.110)	-3.281*** (1.108)	-3.281*** (1.078)
Acquisition event dummy	0.561 (0.518)	0.484 (0.519)	0.743 (0.579)	0.451 (0.516)	0.528 (0.504)	0.504 (0.501)	0.611 (0.512)	0.514 (0.527)	0.575 (0.534)
International dummy	-0.144 (0.455)	-0.203 (0.457)	0.091 (0.551)	-0.189 (0.457)	-0.211 (0.459)	-0.219 (0.463)	-0.221 (0.459)	-0.205 (0.458)	-0.196 (0.467)
Constant	-12.180*** (3.993)	-10.525*** (3.718)	-13.462*** (4.616)	-11.434*** (4.111)	-9.924*** (3.683)	-9.572** (4.535)	-9.476** (3.721)	-10.491*** (3.826)	-11.015** (4.793)
Industry fixed effects	SIC2D	SIC2D	SIC2D	SIC2D	SIC2D	SIC2D	SIC2D	SIC2D	SIC2D
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sample size	284	281	216	281	281	281	281	281	281
Adjusted R ²	0.151	0.185	0.204	0.186	0.186	0.186	0.188	0.186	0.183

Panel B. OLS regressions with satisfaction scores from current employee reviews only

Variable	OLS: Satisfaction scores from current employee reviews only								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Overall satisfaction	0.188 (0.578)	0.033 (0.562)	-0.469 (0.506)						
<i>Sub-categories</i>									
Work-life balance				0.278 (0.561)					1.099 (0.786)
Career opportunities					-0.446 (0.621)				-0.147 (1.114)
Comp. and benefits						-0.293 (0.595)			0.156 (0.938)
Senior management							-0.505 (0.535)		-1.955 (1.274)
CEO approval								0.119 (0.852)	1.585 (1.270)
<i>Firm level variables</i>									

Adjusted CSR		-0.011 (0.279)	0.206 (0.287)	-0.029 (0.282)	-0.016 (0.278)	0.009 (0.277)	0.002 (0.278)	-0.012 (0.280)	-0.064 (0.288)
G-Index			-0.164 (0.109)						
Herfindahl Index	0.129 (0.128)	0.089 (0.139)	0.362** (0.168)	0.091 (0.137)	0.083 (0.145)	0.084 (0.144)	0.086 (0.145)	0.090 (0.141)	0.110 (0.137)
Firm size	-0.076 (0.295)	-0.139 (0.285)	-0.046 (0.299)	-0.143 (0.266)	-0.100 (0.280)	-0.114 (0.265)	-0.081 (0.277)	-0.141 (0.271)	-0.026 (0.274)
Market leverage	0.034 (0.028)	0.038 (0.028)	0.085** (0.033)	0.041 (0.030)	0.035 (0.028)	0.036 (0.029)	0.034 (0.028)	0.038 (0.028)	0.043 (0.030)
Free cash flow	-0.102 (0.067)	-0.118* (0.067)	-0.154 (0.115)	-0.112* (0.064)	-0.134* (0.069)	-0.130* (0.068)	-0.134** (0.066)	-0.118* (0.066)	-0.124* (0.065)
Tobin's Q	0.886 (0.536)	1.003** (0.497)	1.714** (0.813)	0.986** (0.437)	1.111** (0.491)	1.057** (0.442)	1.131** (0.470)	0.994** (0.498)	1.150** (0.502)
Previous market-adjusted return	-0.014 (0.016)	-0.021 (0.016)	-0.028 (0.018)	-0.020 (0.016)	-0.022 (0.016)	-0.021 (0.016)	-0.022 (0.016)	-0.020 (0.016)	-0.021 (0.016)
<i>Deal characteristics</i>									
Relative deal size	0.091** (0.035)	0.115*** (0.028)	0.073** (0.033)	0.114*** (0.029)	0.115*** (0.028)	0.115*** (0.028)	0.116*** (0.028)	0.115*** (0.028)	0.116*** (0.028)
Industry M&A	-0.022 (0.054)	-0.029 (0.054)	-0.024 (0.067)	-0.029 (0.054)	-0.036 (0.054)	-0.032 (0.054)	-0.033 (0.053)	-0.029 (0.054)	-0.037 (0.054)
High tech dummy	0.592 (0.509)	0.518 (0.489)	0.701 (0.531)	0.491 (0.479)	0.545 (0.486)	0.539 (0.483)	0.575 (0.485)	0.518 (0.483)	0.569 (0.479)
Diversification dummy	-0.836 (0.507)	-0.664 (0.490)	-0.535 (0.576)	-0.651 (0.491)	-0.665 (0.493)	-0.682 (0.491)	-0.704 (0.489)	-0.664 (0.493)	-0.719 (0.474)
Public target dummy	0.994 (0.683)	0.758 (0.634)	0.516 (0.622)	0.756 (0.625)	0.745 (0.637)	0.738 (0.644)	0.728 (0.643)	0.761 (0.633)	0.726 (0.644)
Cash only dummy	0.097 (0.474)	-0.134 (0.389)	-0.379 (0.446)	-0.135 (0.385)	-0.106 (0.383)	-0.123 (0.382)	-0.134 (0.381)	-0.134 (0.388)	-0.191 (0.391)
Stock deal dummy	-1.724 (1.119)	-2.396** (0.954)	-0.942 (1.265)	-2.339** (0.986)	-2.392** (0.949)	-2.389** (0.953)	-2.411** (0.950)	-2.405** (0.947)	-2.378** (0.960)
Tender offer dummy	-3.252*** (1.133)	-3.135*** (1.121)	-1.678 (1.128)	-3.074*** (1.103)	-3.221*** (1.107)	-3.151*** (1.092)	-3.224*** (1.098)	-3.131*** (1.110)	-3.071*** (1.087)
Acquisition event dummy	0.682 (0.535)	0.560 (0.535)	0.674 (0.608)	0.529 (0.536)	0.637 (0.519)	0.587 (0.528)	0.673 (0.514)	0.545 (0.534)	0.578 (0.532)
International dummy	-0.122 (0.438)	-0.190 (0.435)	0.014 (0.564)	-0.175 (0.434)	-0.208 (0.437)	-0.203 (0.437)	-0.220 (0.436)	-0.190 (0.438)	-0.216 (0.439)
Constant	-11.067*** (3.983)	-9.384** (3.663)	-12.507*** (4.363)	-10.268** (4.045)	-8.463** (3.665)	-8.395* (4.264)	-8.448** (3.710)	-9.328** (3.839)	-10.101** (4.930)
Industry fixed effects	SIC2D	SIC2D	SIC2D	SIC2D	SIC2D	SIC2D	SIC2D	SIC2D	SIC2D
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sample size	267	264	202	264	264	264	264	264	264
Adjusted R ²	0.192	0.247	0.226	0.247	0.249	0.247	0.250	0.247	0.248

Panel C. Two-stage least squares (2SLS) regression results

Variable	All reviews		
	(1)	(2)	(3)
Overall satisfaction	2.076 (2.691)	1.404 (2.669)	-0.213 (1.988)
<i>Firm level variables</i>			
Adjusted CSR		0.050 (0.273)	0.278 (0.278)
G-Index			-0.144 (0.097)
Herfindahl Index	0.209* (0.120)	0.180 (0.132)	0.408** (0.180)
Firm size	-0.266 (0.454)	-0.274 (0.432)	-0.029 (0.311)
Market leverage	0.049 (0.034)	0.050 (0.034)	0.091*** (0.034)
Free cash flow	-0.032 (0.114)	-0.064 (0.111)	-0.196* (0.116)
Tobin's Q	0.424 (0.889)	0.636 (0.843)	1.999** (0.889)
Previous market-adjusted return	-0.014 (0.017)	-0.020 (0.017)	-0.022 (0.018)
<i>Deal characteristics</i>			
Relative deal size	0.060* (0.037)	0.076** (0.035)	0.025 (0.036)
Industry M&A	0.007 (0.067)	-0.009 (0.067)	-0.015 (0.070)
High tech dummy	0.584 (0.489)	0.561 (0.478)	0.641 (0.526)
Diversification dummy	-0.649 (0.511)	-0.524 (0.503)	-0.452 (0.573)
Public target dummy	1.150 (0.708)	0.931 (0.695)	0.731 (0.627)
Cash only dummy	0.219 (0.505)	0.088 (0.442)	-0.099 (0.451)
Stock deal dummy	-0.580 (1.098)	-1.034 (1.047)	0.569 (1.127)
Tender offer dummy	-3.020** (1.229)	-3.028** (1.211)	-1.829 (1.117)
Acquisition event dummy	0.298 (0.638)	0.300 (0.629)	0.651 (0.665)
International dummy	-0.091 (0.462)	-0.162 (0.466)	0.074 (0.551)
Constant	-15.925** (6.494)	-13.295** (6.420)	-14.937** (5.975)
Industry fixed effects	SIC2D	SIC2D	SIC2D
Year fixed effects	Yes	Yes	Yes
Sample size	284	281	216
Adjusted R ²	0.120	0.169	0.200

Table 5. Target and acquirer-target combined CAR(-1, 1) regressions on the acquiring firms' explanatory variables (for public targets)

Panels A and B of this table reports the OLS regression results for target and acquirer-target combined CARs for the 51 deals involving public targets for which we can calculate target CARs around the announcement dates, with target financial information available on the Compustat database, and more than 5 current employee reviews in the 12-month window prior to deal announcement. Relative deal size is used to determine the acquirer-target weight when combining their CARs. For a detailed explanation about how each control variable is constructed from various data sources, please refer to Table A.1. CARs are calculated using the market model beginning 200 trading days prior to the announcement and ending 11 trading days beforehand, with the CRSP value-weighted return used as the proxy for market return. The first two digits of the acquirer's SIC code are used to control for the industry fixed effect. Year dummies are included. Standard errors are robust to heteroscedasticity and acquirer-clustered, and all variables are winsorized at 5% level. Standard errors are reported in parentheses. *** denotes significance at the 1% level, ** at the 5% level, * at the 10% level respectively.

Panel A. Target CAR OLS regression results

Variable	OLS: Satisfaction scores from current employee reviews only						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Overall satisfaction	-15.239 (10.003)						
<i>Sub-categories</i>							
Work-life balance		-10.893 (9.646)					3.001 (11.213)
Career opportunities			-11.025 (11.513)				18.162 (22.223)
Comp. and benefits				0.303 (13.444)			2.973 (11.886)
Senior management					-22.585*** (8.019)		-38.770 (24.271)
CEO approval						-23.009** (10.739)	0.173 (26.089)
<i>Target/acquirer variables</i>							
Acquirer adjusted CSR	-1.278 (3.989)	-1.304 (4.041)	-1.636 (3.991)	-1.312 (4.319)	-2.360 (3.715)	-2.554 (4.119)	-2.467 (4.649)
Acquirer market leverage	0.015 (0.537)	0.197 (0.565)	-0.005 (0.583)	0.137 (0.582)	-0.028 (0.515)	0.126 (0.509)	0.088 (0.602)
Acquirer free cash flow	-0.221 (0.797)	0.018 (0.818)	-0.209 (0.875)	0.067 (0.891)	-0.230 (0.732)	-0.272 (0.801)	0.046 (0.862)
Target free cash flow	-0.860*** (0.185)	-0.893*** (0.210)	-0.835*** (0.206)	-0.893*** (0.222)	-0.775*** (0.183)	-0.864*** (0.199)	-0.796*** (0.201)
Target previous market-adjusted return	-0.178 (0.116)	-0.165 (0.118)	-0.166 (0.121)	-0.151 (0.113)	-0.176* (0.101)	-0.132 (0.111)	-0.168 (0.143)
<i>Deal characteristics</i>							
Relative deal size	-0.347* (0.186)	-0.239 (0.171)	-0.295 (0.178)	-0.216 (0.208)	-0.367** (0.135)	-0.362** (0.167)	-0.321* (0.172)
Industry M&A	2.161** (0.887)	2.011* (1.014)	2.059** (0.989)	1.740 (1.099)	2.212** (0.804)	2.209** (0.889)	1.924* (0.947)
Cash dummy	-58.011*** (16.875)	-55.518*** (18.515)	-62.414*** (17.362)	-62.996*** (20.521)	-61.167*** (14.984)	-57.958*** (18.377)	-62.991*** (18.391)
Stock dummy	-55.314*** (19.464)	-59.145*** (21.016)	-60.683*** (20.157)	-65.802*** (23.017)	-52.933*** (18.540)	-51.481** (21.898)	-54.925** (22.098)
Tender offer dummy	22.847** (9.599)	21.716** (10.278)	22.550** (10.190)	20.631 (13.135)	23.628*** (8.015)	21.772** (9.048)	21.452** (9.848)
Constant	73.465** (32.899)	66.264* (37.432)	61.313 (37.348)	25.306 (51.599)	90.529*** (25.615)	29.477** (10.915)	56.917 (67.968)
Sectoral fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sample size	51	51	51	51	51	51	51
Adjusted R ²	0.584	0.569	0.560	0.541	0.638	0.595	0.609

Panel B. Acquirer-target combined CAR OLS regression results

Variable	OLS: Satisfaction scores from current employee reviews only						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Overall satisfaction	0.873 (2.149)						
<i>Sub-categories</i>							
Work-life balance		0.885 (2.493)					0.145 (2.734)
Career opportunities			1.055 (2.322)				-2.419 (5.261)
Comp. and benefits				2.454 (2.308)			2.949 (3.458)
Senior management					0.880 (2.459)		-0.550 (5.117)
CEO approval						2.130 (2.933)	3.442 (6.650)
<i>Target/acquirer variables</i>							
Acquirer adjusted CSR	0.653 (1.059)	0.654 (1.071)	0.686 (1.098)	0.753 (1.058)	0.696 (1.090)	0.770 (1.133)	0.863 (1.148)
Acquirer market leverage	0.028 (0.158)	0.016 (0.152)	0.034 (0.163)	0.037 (0.161)	0.027 (0.159)	0.021 (0.153)	0.006 (0.182)
Acquirer free cash flow	-0.239 (0.199)	-0.251 (0.185)	-0.229 (0.210)	-0.239 (0.186)	-0.244 (0.194)	-0.224 (0.190)	-0.251 (0.216)
Target free cash flow	-0.089* (0.044)	-0.087* (0.046)	-0.093** (0.043)	-0.098** (0.044)	-0.092** (0.044)	-0.090* (0.045)	-0.089** (0.043)
Target previous market-adjusted return	-0.008 (0.022)	-0.009 (0.022)	-0.008 (0.023)	-0.013 (0.019)	-0.009 (0.022)	-0.011 (0.022)	-0.020 (0.030)
<i>Deal characteristics</i>							
Relative deal size	0.170*** (0.041)	0.164*** (0.038)	0.170*** (0.037)	0.177*** (0.039)	0.168*** (0.039)	0.176*** (0.039)	0.181*** (0.043)
Industry M&A	0.416 (0.293)	0.418 (0.286)	0.409 (0.292)	0.419 (0.291)	0.421 (0.281)	0.396 (0.282)	0.422 (0.329)
Cash dummy	0.807 (2.672)	0.485 (3.014)	1.037 (2.541)	1.019 (2.586)	1.021 (2.499)	0.626 (2.633)	0.323 (3.607)
Stock dummy	-0.685 (3.838)	-0.623 (3.789)	-0.570 (3.444)	-0.882 (3.561)	-0.587 (3.644)	-1.407 (3.864)	-1.844 (4.710)
Tender offer dummy	0.440 (1.774)	0.481 (1.821)	0.387 (1.714)	-0.245 (1.970)	0.449 (1.757)	0.465 (1.772)	-0.107 (2.255)
Constant	-4.817 (6.887)	-5.360 (9.552)	-5.462 (7.833)	-11.285 (8.979)	-4.620 (7.644)	-2.406 (2.592)	-4.906 (20.171)
Sectoral fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sample size	51	51	51	51	51	51	51
Adjusted R ²	0.524	0.525	0.524	0.539	0.524	0.531	0.471

Table 6. Long-run portfolio performance (sorted on the average overall satisfaction scores of current employees)

In this table, we present the results of our long-run portfolio performance for the 267 M&A deals for which we have more than five reviews written by employees claiming to be current employees of the acquiring firm during the 12-month period prior to the M&A announcement. Following Ikenberry, Lakonishok and Vermaelen (2000) and Moeller, Schlingemann and Stulz (2004), we construct a portfolio of acquirers, rebalancing the portfolio at the end of each month by including each acquirer that has announced an M&A deal during that month and excluding any firm that has reached the end of its specified holding period. Excess returns are calculated either over (i) risk-free rate or (ii) industry-matched portfolio using the Fama-French 49 industry classification. For value-weighted portfolios, value-weighted industry returns are used, while equal-weighted industry returns are used as benchmark for equal-weighted portfolios. Monthly regressions use Fama-French (2015) five-factor model involving *MKT*, *SMB*, *HML*, *RMW* and *CMA* factors. We use Newey-West (1987) heteroscedasticity- and autocorrelation-robust standard errors. All returns are in percent. *** denotes significance at the 1% level, ** at the 5% level, * at the 10% level respectively.

Panel A. Value-weighted portfolios

	12-month holding period excess return over				24-month holding period excess return over				36-month holding period excess return over			
	Risk-free rate		FF 49 industry portfolios		Risk-free rate		FF 49 industry portfolios		Risk-free rate		FF 49 industry portfolios	
	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error
1. All M&A samples												
α	-0.230	0.199	-0.187	0.183	-0.211	0.160	-0.280**	0.138	-0.245*	0.136	-0.295**	0.118
β_{MKT}	1.086***	0.072	0.056	0.050	1.137***	0.060	0.122***	0.040	1.166***	0.051	0.132***	0.036
β_{SMB}	-0.245*	0.131	-0.264**	0.101	-0.211**	0.102	-0.244***	0.070	-0.209**	0.089	-0.223***	0.065
β_{HML}	-0.059	0.134	-0.082	0.103	-0.021	0.102	-0.087	0.070	0.005	0.086	-0.082	0.065
β_{RMW}	-0.119	0.201	-0.158	0.138	-0.014	0.126	-0.037	0.103	-0.005	0.119	-0.039	0.097
β_{CMA}	-0.301*	0.174	-0.235	0.190	-0.340**	0.156	-0.222*	0.130	-0.361**	0.142	-0.231*	0.120
Adjusted R ²	0.828		0.111		0.896		0.200		0.923		0.239	
2. High satisfaction score M&A subsample												
α	0.103	0.297	-0.010	0.264	0.085	0.207	-0.023	0.189	0.019	0.170	-0.067	0.140
β_{MKT}	1.087***	0.102	0.063	0.066	1.133***	0.070	0.089*	0.052	1.164***	0.063	0.115***	0.042
β_{SMB}	-0.243	0.172	-0.221	0.152	-0.281**	0.111	-0.303***	0.088	-0.279***	0.099	-0.273***	0.087
β_{HML}	0.029	0.222	-0.051	0.154	-0.077	0.161	-0.226*	0.121	0.004	0.137	-0.150	0.108
β_{RMW}	-0.066	0.306	-0.175	0.226	-0.125	0.215	-0.213	0.151	-0.097	0.193	-0.136	0.122
β_{CMA}	-0.618*	0.320	-0.560**	0.255	-0.426**	0.193	-0.237	0.179	-0.480***	0.157	-0.272*	0.154
Adjusted R ²	0.686		0.089		0.812		0.170		0.877		0.214	
3. Low satisfaction score M&A subsample												
α	-0.350	0.212	-0.260	0.185	-0.460***	0.144	-0.477***	0.134	-0.466***	0.130	-0.442***	0.138
β_{MKT}	1.060***	0.076	0.076	0.060	1.102***	0.067	0.124**	0.053	1.120***	0.056	0.100**	0.049
β_{SMB}	-0.121	0.138	-0.177	0.111	-0.100	0.133	-0.133	0.106	-0.133	0.132	-0.118	0.102
β_{HML}	0.048	0.194	0.172	0.159	0.104	0.102	0.214**	0.097	0.099	0.101	0.133	0.101
β_{RMW}	0.058	0.192	0.142	0.136	0.054	0.157	0.239*	0.137	-0.003	0.114	0.104	0.080
β_{CMA}	-0.132	0.225	-0.158	0.194	-0.264	0.190	-0.230	0.157	-0.231	0.175	-0.173	0.162
Adjusted R ²	0.764		0.018		0.875		0.113		0.896		0.036	
4. Zero-cost portfolio on high-low satisfaction score subsamples												
α	0.453	0.364	0.250	0.316	0.545***	0.199	0.454***	0.161	0.485***	0.169	0.375**	0.145
β_{MKT}	0.027	0.110	-0.013	0.079	0.031	0.080	-0.035	0.069	0.044	0.064	0.015	0.050
β_{SMB}	-0.121	0.198	-0.045	0.196	-0.181	0.116	-0.170	0.138	-0.146	0.117	-0.156	0.140
β_{HML}	-0.019	0.357	-0.223	0.250	-0.181	0.183	-0.440***	0.141	-0.094	0.159	-0.283**	0.136
β_{RMW}	-0.124	0.400	-0.317	0.284	-0.179	0.298	-0.452**	0.223	-0.095	0.220	-0.240*	0.134
β_{CMA}	-0.486	0.351	-0.402	0.265	-0.161	0.218	-0.006	0.174	-0.250	0.176	-0.099	0.167
Adjusted R ²	-0.025		0.053		0.028		0.192		0.038		0.126	
No. of obs.	77		77		77		77		77		77	

Panel B. Equal-weighted portfolios

	12-month holding period excess return over				24-month holding period excess return over				36-month holding period excess return over			
	Risk-free rate		FF 49 industry portfolios		Risk-free rate		FF 49 industry portfolios		Risk-free rate		FF 49 industry portfolios	
	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error
1. All M&A samples												
α	0.109	0.188	-0.175	0.194	-0.028	0.132	-0.276	0.176	-0.007	0.123	-0.239	0.167
β_{MKT}	1.078***	0.056	0.157**	0.068	1.108***	0.038	0.161***	0.056	1.129***	0.035	0.181***	0.054
β_{SMB}	-0.005	0.078	-0.584***	0.104	0.016	0.070	-0.567***	0.096	0.014	0.060	-0.555***	0.091
β_{HML}	0.061	0.109	-0.134	0.112	0.086	0.093	-0.140	0.096	0.136*	0.079	-0.103	0.096
β_{RMW}	-0.162	0.184	0.239*	0.130	-0.059	0.092	0.262**	0.103	-0.082	0.093	0.224**	0.095
β_{CMA}	-0.243*	0.138	-0.196	0.146	-0.193	0.125	-0.105	0.116	-0.271**	0.118	-0.211*	0.116
Adjusted R ²	0.909		0.531		0.941		0.584		0.955		0.611	
2. High satisfaction score M&A subsample												
α	0.262	0.264	-0.021	0.259	0.175	0.182	-0.114	0.204	0.138	0.173	-0.122	0.199
β_{MKT}	1.119***	0.088	0.169*	0.095	1.150***	0.065	0.179**	0.068	1.174***	0.062	0.197***	0.069
β_{SMB}	-0.099	0.144	-0.675***	0.179	-0.141	0.088	-0.724***	0.120	-0.132	0.084	-0.708***	0.119
β_{HML}	0.093	0.175	-0.086	0.189	0.069	0.131	-0.161	0.142	0.119	0.120	-0.126	0.142
β_{RMW}	-0.199	0.292	0.241	0.209	-0.229	0.186	0.140	0.153	-0.199	0.182	0.172	0.132
β_{CMA}	-0.465*	0.236	-0.401	0.252	-0.362*	0.201	-0.255	0.187	-0.407**	0.183	-0.278	0.180
Adjusted R ²	0.763		0.331		0.872		0.506		0.902		0.541	
3. Low satisfaction score M&A subsample												
α	-0.076	0.230	-0.346	0.239	-0.235	0.152	-0.413*	0.208	-0.229	0.138	-0.395*	0.202
β_{MKT}	1.047***	0.065	0.171**	0.078	1.073***	0.046	0.164**	0.068	1.082***	0.042	0.174**	0.066
β_{SMB}	0.057	0.113	-0.546***	0.122	0.066	0.105	-0.537***	0.114	0.055	0.099	-0.536***	0.111
β_{HML}	0.081	0.170	-0.080	0.130	0.140	0.123	-0.049	0.095	0.169*	0.100	-0.037	0.090
β_{RMW}	-0.031	0.193	0.378**	0.173	0.017	0.118	0.355***	0.101	-0.028	0.097	0.311***	0.107
β_{CMA}	-0.223	0.177	-0.230	0.150	-0.242	0.152	-0.215	0.132	-0.243*	0.137	-0.235*	0.122
Adjusted R ²	0.827		0.444		0.898		0.506		0.919		0.529	
4. Zero-cost portfolio on high-low satisfaction score subsamples												
α	0.338	0.264	0.325	0.239	0.410**	0.171	0.299*	0.155	0.366**	0.161	0.273*	0.152
β_{MKT}	0.072	0.090	-0.002	0.090	0.077	0.071	0.015	0.065	0.092	0.069	0.024	0.069
β_{SMB}	-0.156	0.162	-0.129	0.167	-0.207**	0.095	-0.187*	0.100	-0.187**	0.093	-0.172*	0.092
β_{HML}	0.012	0.247	-0.006	0.208	-0.070	0.157	-0.112	0.133	-0.049	0.144	-0.089	0.130
β_{RMW}	-0.169	0.312	-0.136	0.234	-0.246	0.252	-0.215	0.154	-0.171	0.204	-0.139	0.117
β_{CMA}	-0.242	0.281	-0.171	0.282	-0.120	0.251	-0.040	0.220	-0.164	0.244	-0.043	0.213
Adjusted R ² .	-0.042		-0.049		0.004		0.001		0.012		-0.004	
No. of obs.	77		77		77		77		77		77	

Table 7. Long-run portfolio performance (sorted on the average overall satisfaction scores of all employees)

In this table, we present the results of our long-run portfolio performance for the 284 M&A deals for which we have more than five reviews written by both current and former employees the acquiring firm during the 12-month period prior to the M&A announcement. Following Ikenberry, Lakonishok and Vermaelen (2000) and Moeller, Schlingemann and Stulz (2004), we construct a portfolio of acquirers, rebalancing the portfolio at the end of each month by including each acquirer that has announced an M&A deal during that month and excluding any firm that has reached the end of its specified holding period. Excess returns are calculated either over (i) risk-free rate or (ii) industry-matched portfolio using the Fama-French 49 industry classification. For value-weighted portfolios, value-weighted industry returns are used, while equal-weighted industry returns are used as benchmark for equal-weighted portfolios. Monthly regressions use Fama-French (2015) five-factor model involving *MKT*, *SMB*, *HML*, *RMW* and *CMA* factors. We use Newey-West (1987) heteroscedasticity- and autocorrelation-robust standard errors. All returns are in percent. *** denotes significance at the 1% level, ** at the 5% level, * at the 10% level respectively.

	12-month holding period excess return over				24-month holding period excess return over				36-month holding period excess return over			
	Risk-free rate		FF 49 industry portfolios		Risk-free rate		FF 49 industry portfolios		Risk-free rate		FF 49 industry portfolios	
	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error
1. Zero-cost portfolio on high-low satisfaction score subsamples, value weighted												
α	0.347	0.387	0.431	0.320	0.449*	0.235	0.406**	0.177	0.423*	0.224	0.346**	0.170
β_{MKT}	0.081	0.118	-0.030	0.092	0.142	0.105	0.070	0.088	0.098	0.099	0.052	0.080
β_{SMB}	-0.250	0.182	-0.172	0.186	-0.251	0.156	-0.231	0.168	-0.228	0.157	-0.232	0.168
β_{HML}	-0.109	0.446	-0.353	0.330	-0.054	0.231	-0.326**	0.163	-0.015	0.202	-0.250	0.165
β_{RMW}	-0.271	0.440	-0.336	0.328	-0.136	0.378	-0.360	0.294	0.000	0.319	-0.233	0.251
β_{CMA}	0.064	0.381	0.282	0.267	-0.223	0.234	-0.002	0.183	-0.103	0.210	0.052	0.166
Adjusted R ²	-0.043		-0.017		0.012		0.073		-0.012		0.031	
2. Zero-cost portfolio on high-low satisfaction score subsamples, equal weighted												
α	0.227	0.280	0.174	0.210	0.340*	0.196	0.101	0.166	0.282	0.190	0.038	0.163
β_{MKT}	0.093	0.102	0.023	0.080	0.135	0.083	0.096	0.070	0.131	0.082	0.078	0.069
β_{SMB}	-0.239	0.157	-0.209	0.139	-0.234*	0.134	-0.210*	0.125	-0.193	0.135	-0.167	0.124
β_{HML}	0.114	0.305	0.105	0.176	0.082	0.185	0.015	0.120	0.068	0.173	0.005	0.109
β_{RMW}	-0.210	0.361	-0.200	0.230	-0.087	0.301	-0.130	0.174	-0.035	0.271	-0.082	0.154
β_{CMA}	-0.062	0.220	0.009	0.212	-0.051	0.176	0.042	0.182	-0.072	0.193	0.039	0.152
Adjusted R ²	-0.023		-0.016		0.012		0.019		0.000		-0.005	
No. of obs.	77		77		77		77		77		77	

Table 8. Long-run portfolio performance (5% and 10% winsorization)

This table re-estimates the portfolios regressions in Table 6, with the portfolio returns winsorized at 5% or 10% level. Excess returns are calculated either over (i) risk-free rate or (ii) industry-matched portfolio using Fama-French 49 industry classification, and neither variable, nor any of the Fama-French five factors, is winsorized. We use Newey-West (1987) heteroscedasticity- and autocorrelation-robust standard errors. All returns are in percent. *** denotes significance at the 1% level, ** at the 5% level, * at the 10% level respectively.

	12-month holding period excess return over				24-month holding period excess return over				36-month holding period excess return over			
	Risk-free rate		FF 49 industry portfolios		Risk-free rate		FF 49 industry portfolios		Risk-free rate		FF 49 Industry portfolios	
	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error
5% winsorization portfolios												
1. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, value weighted												
α	0.421	0.361	0.283	0.295	0.532***	0.195	0.459***	0.159	0.447**	0.173	0.379***	0.143
β_{MKT}	0.051	0.100	-0.011	0.077	0.063	0.078	-0.032	0.068	0.079	0.066	0.019	0.048
β_{SMB}	-0.098	0.192	-0.050	0.194	-0.176	0.116	-0.166	0.132	-0.150	0.117	-0.144	0.124
β_{HML}	-0.015	0.356	-0.165	0.211	-0.182	0.180	-0.423***	0.138	-0.084	0.158	-0.257**	0.129
β_{RMW}	-0.114	0.399	-0.272	0.268	-0.182	0.297	-0.430*	0.219	-0.097	0.221	-0.228*	0.133
β_{CMA}	-0.508	0.342	-0.426	0.263	-0.206	0.210	-0.023	0.170	-0.296*	0.173	-0.134	0.156
Adjusted R ²	-0.021		0.044		0.043		0.189		0.060		0.129	
2. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, equal weighted												
α	0.314	0.262	0.272	0.231	0.409**	0.171	0.289*	0.152	0.353**	0.162	0.265*	0.149
β_{MKT}	0.071	0.085	0.016	0.077	0.055	0.062	0.016	0.064	0.070	0.055	0.028	0.067
β_{SMB}	-0.149	0.158	-0.121	0.154	-0.200**	0.090	-0.198**	0.092	-0.190**	0.087	-0.187**	0.084
β_{HML}	-0.003	0.239	-0.084	0.187	-0.103	0.140	-0.112	0.131	-0.076	0.122	-0.084	0.127
β_{RMW}	-0.161	0.312	-0.117	0.223	-0.239	0.250	-0.244	0.151	-0.165	0.203	-0.170	0.112
β_{CMA}	-0.211	0.273	-0.094	0.271	-0.057	0.224	-0.043	0.218	-0.097	0.210	-0.049	0.210
Adjusted R ²	-0.043		-0.044		0.001		0.011		0.011		0.009	
10% winsorization portfolios												
3. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, value weighted												
α	0.353	0.353	0.340	0.284	0.465**	0.195	0.377*	0.195	0.425**	0.175	0.333**	0.152
β_{MKT}	0.105	0.086	0.060	0.071	0.106	0.075	0.030	0.064	0.080	0.060	-0.025	0.041
β_{SMB}	-0.064	0.189	0.058	0.150	-0.179	0.113	-0.158*	0.084	-0.129	0.110	0.019	0.077
β_{HML}	-0.005	0.351	0.177	0.167	-0.174	0.175	-0.214	0.171	-0.106	0.155	-0.119	0.140
β_{RMW}	-0.069	0.381	0.163	0.218	-0.198	0.292	-0.117	0.262	-0.124	0.210	-0.222**	0.097
β_{CMA}	-0.561	0.344	-0.653**	0.261	-0.259	0.198	-0.173	0.189	-0.284	0.177	-0.208	0.164
Adjusted R ²	-0.004		0.029		0.074		0.118		0.075		0.127	
4. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, equal weighted												
α	0.259	0.253	0.247	0.226	0.360**	0.172	0.294**	0.147	0.328**	0.163	0.257*	0.146
β_{MKT}	0.094	0.068	0.035	0.068	0.093	0.061	0.043	0.056	0.089*	0.052	0.050	0.061
β_{SMB}	-0.115	0.148	-0.058	0.138	-0.184**	0.089	-0.197***	0.074	-0.172**	0.086	-0.167**	0.071
β_{HML}	0.010	0.218	-0.098	0.172	-0.109	0.131	-0.103	0.119	-0.085	0.111	-0.074	0.116
β_{RMW}	-0.105	0.285	-0.067	0.202	-0.249	0.249	-0.206	0.134	-0.172	0.198	-0.125	0.090
β_{CMA}	-0.270	0.236	-0.059	0.258	-0.112	0.196	-0.062	0.202	-0.146	0.183	-0.059	0.195
Adjusted R ²	-0.031		-0.050		0.031		0.022		0.040		0.009	
No. of obs.	77		77		77		77		77		77	

Table 9. Long-run portfolio performance (sorted on sub-category satisfaction scores)

This table re-estimates the portfolios regressions in Table 6, but using the satisfaction scores of the current employees on the following five sub-categories instead of the overall satisfaction score: (i) work-life balance, (ii) career opportunities, (iii) compensation and benefits, (iv) senior management, (v) CEO approval. Excess returns are calculated either over (i) risk-free rate or (ii) industry-matched portfolio using Fama-French 49 industry classification. We use Newey-West (1987) heteroscedasticity- and autocorrelation-robust standard errors. All returns are in percent. *** denotes significance at the 1% level, ** at the 5% level, * at the 10% level respectively.

	12-month holding period excess return over				24-month holding period excess return over				36-month holding period excess return over			
	Risk-free rate		FF 49 industry portfolios		Risk-free rate		FF 49 industry portfolios		Risk-free rate		FF 49 Industry portfolios	
	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error
Work-life balance												
1. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, value weighted												
α	0.236	0.444	0.215	0.429	0.379	0.405	0.185	0.339	0.338	0.389	0.164	0.330
β_{MKT}	-0.029	0.137	-0.065	0.135	-0.081	0.122	-0.037	0.126	-0.041	0.124	-0.016	0.124
β_{SMB}	0.059	0.294	0.163	0.222	-0.059	0.284	-0.015	0.226	0.016	0.260	0.024	0.210
β_{HML}	0.550*	0.324	0.241	0.237	0.403	0.301	0.063	0.202	0.502*	0.265	0.190	0.188
β_{RMW}	-1.465**	0.675	-1.283**	0.601	-1.564**	0.682	-1.556***	0.577	-1.320*	0.688	-1.358**	0.579
β_{CMA}	-0.129	0.422	0.151	0.391	-0.134	0.422	0.066	0.350	-0.159	0.379	-0.052	0.316
Adjusted R ²	0.211		0.190		0.211		0.245		0.204		0.225	
2. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, equal weighted												
α	0.351	0.413	0.150	0.398	0.398	0.404	0.152	0.353	0.370	0.392	0.100	0.347
β_{MKT}	-0.058	0.109	-0.042	0.112	-0.113	0.100	-0.059	0.100	-0.066	0.101	-0.015	0.101
β_{SMB}	0.029	0.161	0.133	0.167	0.005	0.157	0.053	0.158	0.019	0.148	0.053	0.156
β_{HML}	0.599**	0.281	0.427*	0.237	0.405	0.291	0.303	0.233	0.473*	0.283	0.369	0.229
β_{RMW}	-1.280*	0.721	-0.965	0.657	-1.313*	0.719	-1.075*	0.633	-1.195	0.724	-0.992	0.640
β_{CMA}	-0.114	0.415	0.189	0.347	0.140	0.411	0.246	0.321	0.039	0.402	0.121	0.304
Adjusted R ²	0.218		0.181		0.202		0.185		0.195		0.181	
Career opportunities												
3. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, value weighted												
α	0.409	0.367	0.716**	0.306	0.501*	0.253	0.588***	0.200	0.379	0.256	0.515**	0.209
β_{MKT}	0.024	0.120	-0.056	0.117	0.121	0.098	0.103	0.092	0.120	0.104	0.104	0.091
β_{SMB}	-0.255	0.229	-0.107	0.170	-0.204	0.205	-0.092	0.142	-0.162	0.210	-0.084	0.147
β_{HML}	-0.112	0.390	-0.240	0.306	-0.173	0.273	-0.212	0.205	-0.185	0.250	-0.188	0.186
β_{RMW}	0.044	0.435	-0.082	0.360	0.051	0.329	-0.032	0.224	0.054	0.316	-0.042	0.219
β_{CMA}	-0.074	0.387	0.265	0.323	-0.337	0.260	-0.136	0.204	-0.341	0.284	-0.189	0.224
Adjusted R ²	-0.031		-0.045		0.035		0.013		0.035		0.020	
4. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, equal weighted												
α	0.419	0.350	0.327	0.335	0.501**	0.242	0.330	0.230	0.386*	0.214	0.189	0.227
β_{MKT}	0.092	0.093	-0.038	0.072	0.066	0.073	0.027	0.057	0.082	0.080	0.048	0.066
β_{SMB}	-0.284	0.178	-0.081	0.187	-0.209	0.153	-0.085	0.163	-0.184	0.149	-0.087	0.151
β_{HML}	0.015	0.280	-0.148	0.284	-0.160	0.209	-0.229	0.222	-0.176	0.199	-0.234	0.223
β_{RMW}	-0.020	0.352	-0.183	0.301	-0.084	0.304	-0.091	0.255	-0.046	0.292	-0.056	0.257
β_{CMA}	-0.364	0.273	-0.192	0.232	-0.247	0.195	-0.236	0.164	-0.222	0.204	-0.180	0.181
Adjusted R ²	-0.003		-0.026		0.030		0.041		0.032		0.030	

Compensation and benefits

5. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, value weighted

α	0.132	0.337	0.353	0.270	0.073	0.257	0.191	0.231	0.008	0.220	0.187	0.208
β_{MKT}	-0.236**	0.117	-0.267***	0.098	-0.196**	0.089	-0.198**	0.083	-0.067	0.065	-0.078	0.063
β_{SMB}	-0.143	0.182	0.013	0.151	-0.249**	0.116	-0.123	0.109	-0.227**	0.105	-0.140	0.109
β_{HML}	-0.076	0.313	-0.138	0.244	0.027	0.245	-0.038	0.213	0.157	0.194	0.085	0.174
β_{RMW}	-0.124	0.364	-0.399	0.281	-0.347	0.296	-0.566**	0.232	-0.234	0.281	-0.447*	0.226
β_{CMA}	0.536	0.410	0.402	0.317	0.175	0.300	0.077	0.252	0.062	0.241	-0.015	0.203
Adjusted R ²	0.039		0.071		0.075		0.100		0.023		0.035	

6. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, equal weighted

α	0.058	0.300	-0.017	0.326	0.036	0.263	-0.113	0.255	0.014	0.205	-0.035	0.225
β_{MKT}	-0.055	0.089	-0.164**	0.073	-0.034	0.071	-0.133*	0.067	0.056	0.063	-0.054	0.068
β_{SMB}	-0.187	0.141	-0.054	0.119	-0.260**	0.101	-0.140	0.105	-0.289***	0.084	-0.180*	0.095
β_{HML}	-0.248	0.180	-0.216	0.159	-0.161	0.139	-0.178	0.135	-0.119	0.126	-0.148	0.146
β_{RMW}	-0.167	0.265	-0.063	0.238	-0.296	0.207	-0.159	0.217	-0.245	0.200	-0.208	0.213
β_{CMA}	0.289	0.255	0.275	0.287	0.162	0.240	0.256	0.189	0.093	0.223	0.140	0.188
Adjusted R ²	-0.019		0.020		0.010		0.038		0.019		-0.003	

Senior management

7. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, value weighted

α	0.270	0.485	0.545	0.429	0.338	0.389	0.440	0.294	0.148	0.341	0.264	0.222
β_{MKT}	0.050	0.113	-0.053	0.113	0.055	0.087	0.027	0.089	0.051	0.087	0.012	0.076
β_{SMB}	-0.081	0.204	-0.021	0.172	-0.104	0.170	-0.075	0.148	-0.059	0.165	-0.038	0.143
β_{HML}	-0.527	0.514	-0.672*	0.374	-0.465	0.430	-0.629**	0.287	-0.491	0.401	-0.615**	0.254
β_{RMW}	-0.265	0.355	-0.250	0.331	-0.175	0.279	-0.241	0.231	-0.059	0.252	-0.141	0.205
β_{CMA}	0.175	0.446	0.537	0.367	-0.104	0.320	0.207	0.238	-0.059	0.327	0.165	0.242
Adjusted R ²	-0.010		0.015		0.059		0.123		0.082		0.168	

8. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, equal weighted

α	0.013	0.429	0.209	0.363	-0.003	0.326	0.059	0.242	-0.059	0.288	-0.036	0.203
β_{MKT}	0.064	0.087	-0.053	0.062	0.038	0.081	0.010	0.057	0.052	0.081	0.029	0.058
β_{SMB}	-0.063	0.159	0.043	0.173	-0.072	0.137	0.009	0.142	-0.056	0.123	-0.007	0.120
β_{HML}	-0.475	0.404	-0.398	0.297	-0.546	0.353	-0.421*	0.243	-0.506	0.339	-0.385	0.232
β_{RMW}	-0.204	0.316	-0.166	0.250	-0.151	0.269	-0.093	0.190	-0.076	0.240	-0.022	0.177
β_{CMA}	0.168	0.258	0.408*	0.216	0.199	0.207	0.225	0.168	0.093	0.215	0.156	0.168
Adjusted R ²	0.005		-0.019		0.069		0.042		0.095		0.061	

CEO approval

9. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, value weighted

α	0.018	0.350	0.410	0.320	0.118	0.288	0.332	0.225	-0.062	0.242	0.196	0.180
β_{MKT}	0.014	0.112	-0.052	0.123	0.099	0.088	0.072	0.097	0.121	0.087	0.081	0.090
β_{SMB}	-0.166	0.198	-0.042	0.187	-0.254	0.159	-0.132	0.156	-0.258	0.155	-0.134	0.150
β_{HML}	-0.154	0.366	-0.415	0.320	-0.024	0.265	-0.337	0.228	0.028	0.244	-0.290	0.183
β_{RMW}	-0.256	0.250	-0.196	0.278	-0.115	0.189	-0.086	0.197	-0.044	0.179	-0.035	0.162
β_{CMA}	-0.002	0.473	0.352	0.402	-0.369	0.302	0.019	0.246	-0.369	0.284	-0.044	0.237
Adjusted R ²	-0.049		-0.029		0.020		0.035		0.033		0.054	

10. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, equal weighted												
α	-0.165	0.296	0.022	0.291	-0.170	0.232	-0.004	0.225	-0.220	0.195	-0.087	0.196
β_{MKT}	0.042	0.080	0.011	0.071	0.073	0.068	0.086	0.067	0.115*	0.068	0.133*	0.068
β_{SMB}	-0.196	0.143	-0.045	0.149	-0.285**	0.121	-0.154	0.130	-0.311**	0.119	-0.183	0.114
β_{HML}	0.115	0.230	-0.072	0.181	0.132	0.183	-0.014	0.150	0.190	0.182	0.065	0.147
β_{RMW}	-0.267	0.225	-0.233	0.192	-0.219	0.180	-0.184	0.145	-0.146	0.169	-0.123	0.140
β_{CMA}	-0.213	0.285	0.104	0.253	-0.297	0.223	-0.069	0.205	-0.354*	0.203	-0.180	0.194
Adjusted R ²	-0.026		-0.048		0.028		-0.012		0.069		0.038	
No. of obs.	77		77		77		77		77		77	

Table 10. Long-run portfolio performance of the non-acquirer matching portfolios

This table re-estimates the portfolios regressions in Table 6, but for the non-acquirer sample matched to each M&A announcement using propensity score matching with nearest neighbor method (without caliper). Two matching procedures are provided: first, we match each acquirer with a non-acquirer only on observable firm-year characteristics, namely (i) firm size, (ii) book-to-market, (iii) book leverage, and (iv) dummy variables for the first two digits of the SIC code. Then, we match each acquirer with a non-acquirer with the aforementioned firm-year characteristics as well as the average overall satisfaction scores of the current employees in the announcement year. Excess returns are calculated either over (i) risk-free rate or (ii) industry-matched portfolio using the Fama-French 49 industry classification. We use Newey-West (1987) heteroscedasticity- and autocorrelation-robust standard errors. *** denotes significance at the 1% level, ** at the 5% level, * at the 10% level respectively.

	12-month holding period excess return over				24-month holding period excess return over				36-month holding period excess return over			
	Risk-free rate		FF 49 industry portfolios		Risk-free rate		FF 49 industry portfolios		Risk-free rate		FF 49 industry portfolios	
	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error
Matched non-acquirer portfolio based exclusively on firm characteristics												
1. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, value weighted												
α	-0.347	0.343	-0.721**	0.342	-0.084	0.333	-0.367	0.339	-0.313	0.288	-0.379	0.319
β_{MKT}	-0.025	0.148	-0.031	0.105	0.016	0.136	-0.020	0.101	0.090	0.113	-0.021	0.092
β_{SMB}	0.167	0.204	-0.030	0.147	0.003	0.160	-0.140	0.111	0.050	0.146	-0.092	0.106
β_{HML}	-0.352	0.305	-0.430	0.321	-0.433	0.288	-0.510	0.325	-0.366	0.243	-0.413	0.298
β_{RMW}	0.848**	0.349	0.479**	0.212	0.706**	0.326	0.390	0.239	0.666**	0.287	0.396**	0.196
β_{CMA}	0.670	0.512	0.528	0.423	0.836**	0.362	0.662*	0.333	0.544**	0.261	0.491*	0.250
Adjusted R ²	0.107		0.087		0.182		0.180		0.177		0.179	
2. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, equal weighted												
α	-0.495	0.425	-0.704*	0.394	-0.383	0.413	-0.521	0.398	-0.557	0.367	-0.580	0.361
β_{MKT}	-0.048	0.113	-0.144	0.115	-0.030	0.104	-0.123	0.113	0.045	0.087	-0.068	0.098
β_{SMB}	0.078	0.158	-0.011	0.123	-0.032	0.136	-0.090	0.106	0.005	0.125	-0.055	0.092
β_{HML}	-0.522	0.372	-0.241	0.346	-0.609	0.387	-0.409	0.346	-0.558	0.373	-0.366	0.336
β_{RMW}	0.762***	0.267	0.587***	0.220	0.495*	0.267	0.423*	0.237	0.545**	0.219	0.423**	0.208
β_{CMA}	0.307	0.297	0.085	0.296	0.609***	0.228	0.468*	0.260	0.383*	0.197	0.264	0.231
Adjusted R ²	0.208		0.181		0.201		0.195		0.228		0.185	
Matched non-acquirer portfolio based on firm characteristics and satisfaction scores averaged over current employee reviews												
3. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, value weighted												
α	0.074	0.429	-0.230	0.357	-0.096	0.297	-0.364	0.246	-0.053	0.280	-0.260	0.228
β_{MKT}	-0.116	0.115	-0.056	0.085	-0.027	0.078	0.029	0.054	-0.042	0.074	0.009	0.048
β_{SMB}	0.153	0.184	0.095	0.194	0.107	0.157	0.093	0.164	0.140	0.150	0.128	0.154
β_{HML}	0.353	0.370	0.527*	0.312	0.217	0.245	0.430**	0.175	0.239	0.223	0.430***	0.157
β_{RMW}	0.340	0.331	0.318	0.273	0.122	0.241	0.093	0.222	0.050	0.228	-0.030	0.203
β_{CMA}	-0.379	0.496	-0.269	0.435	-0.466	0.313	-0.535**	0.233	-0.546*	0.275	-0.606***	0.200
Adjusted R ²	-0.020		0.013		-0.035		0.011		-0.012		0.048	
4. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, equal weighted												
α	-0.050	0.346	-0.151	0.303	-0.100	0.215	-0.124	0.205	-0.056	0.210	-0.070	0.208
β_{MKT}	-0.089	0.079	-0.097	0.084	-0.054	0.064	-0.107	0.073	-0.052	0.064	-0.093	0.072
β_{SMB}	0.270*	0.154	0.216	0.174	0.125	0.133	0.124	0.155	0.141	0.127	0.147	0.144
β_{HML}	0.196	0.252	0.220	0.205	0.202	0.192	0.180	0.147	0.214	0.184	0.194	0.143
β_{RMW}	0.131	0.318	0.287	0.263	-0.052	0.221	0.034	0.197	-0.074	0.217	-0.039	0.205
β_{CMA}	-0.109	0.377	-0.054	0.316	-0.110	0.273	0.020	0.236	-0.260	0.252	-0.164	0.225
Adjusted R ²	-0.011		-0.009		-0.018		-0.004		-0.007		-0.005	
No. of obs.	77		77		77		77		77		77	

Table 11. Long-run portfolio performance (excluding observations with various deal-level characteristics)

This table re-estimates the portfolios regressions in Table 6, but excluding either (i) all deals made by acquirers with more than 5 completed acquisitions during the sample period. (ii) small deals, defined as less than 1% of the acquirer's market equity, (iii) acquisition events, or (iv) international deals. Excess returns are calculated either over (i) risk-free rate or (ii) industry-matched portfolio using the Fama-French 49 industry classification. For value-weighted portfolios, value-weighted industry returns are used, while equal-weighted industry returns are used as benchmark for equal-weighted portfolios. Monthly regressions are performed against Fama and French (2015) five-factor model involving *MKT*, *SMB*, *HML*, *RMW* and *CMA* factors. We use Newey-West (1987) heteroscedasticity- and autocorrelation-robust standard errors. All returns are in percent. *** denotes significance at the 1% level, ** at the 5% level, * at the 10% level respectively.

	12-month holding period excess return over				24-month holding period excess return over				36-month holding period excess return over			
	Risk-free rate		FF 49 industry portfolios		Risk-free rate		FF 49 industry portfolios		Risk-free rate		FF 49 industry portfolios	
	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error
Excluding deals made by serial acquirers with more than 5 completed acquisitions during the sample period												
1. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, value weighted												
α	0.244	0.444	0.069	0.390	0.535*	0.273	0.514**	0.211	0.580**	0.262	0.543***	0.200
β_{MKT}	0.024	0.143	0.015	0.116	0.057	0.121	0.016	0.104	0.042	0.117	0.034	0.093
β_{SMB}	-0.336	0.233	-0.153	0.226	-0.291	0.189	-0.241	0.183	-0.220	0.195	-0.196	0.191
β_{HML}	0.015	0.423	-0.163	0.297	-0.156	0.236	-0.444***	0.160	-0.050	0.232	-0.244	0.167
β_{RMW}	-0.095	0.439	-0.005	0.317	-0.145	0.393	-0.358	0.286	-0.087	0.342	-0.189	0.222
β_{CMA}	-0.334	0.429	-0.208	0.375	-0.244	0.266	-0.013	0.216	-0.356	0.274	-0.131	0.232
Adjusted R ²	-0.026		-0.025		0.008		0.091		-0.003		0.029	
2. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, equal weighted												
α	0.383	0.366	0.391	0.293	0.542**	0.251	0.397**	0.188	0.515**	0.245	0.393**	0.193
β_{MKT}	0.087	0.120	0.003	0.109	0.121	0.097	0.050	0.077	0.138	0.099	0.059	0.085
β_{SMB}	-0.225	0.206	-0.184	0.205	-0.225	0.147	-0.204	0.140	-0.192	0.147	-0.183	0.127
β_{HML}	0.239	0.370	0.184	0.276	-0.017	0.220	-0.096	0.161	0.013	0.210	-0.061	0.150
β_{RMW}	-0.135	0.380	-0.186	0.262	-0.271	0.324	-0.354**	0.160	-0.191	0.283	-0.266**	0.128
β_{CMA}	-0.437	0.397	-0.335	0.369	-0.150	0.298	-0.041	0.260	-0.224	0.302	-0.050	0.247
Adjusted R ²	0.208		0.181		0.201		0.195		0.228		0.185	
Excluding small deals less than 1% of the acquirer's market equity												
3. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, value weighted												
α	0.146	0.495	0.081	0.428	0.663*	0.362	0.565*	0.299	0.654**	0.308	0.637**	0.277
β_{MKT}	0.094	0.131	0.012	0.103	0.073	0.107	-0.004	0.094	-0.007	0.106	-0.061	0.087
β_{SMB}	-0.189	0.228	-0.092	0.234	-0.138	0.180	-0.140	0.209	-0.138	0.177	-0.165	0.216
β_{HML}	-0.035	0.411	-0.124	0.298	-0.140	0.342	-0.326	0.264	-0.231	0.272	-0.361	0.237
β_{RMW}	0.171	0.514	0.055	0.408	0.236	0.478	-0.089	0.381	0.208	0.455	-0.077	0.368
β_{CMA}	-0.134	0.498	-0.122	0.327	-0.192	0.304	0.003	0.246	-0.172	0.271	0.026	0.208
Adjusted R ²	-0.048		-0.053		-0.014		-0.005		0.025		0.036	
4. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, equal weighted												
α	0.294	0.392	0.158	0.375	0.500	0.310	0.386	0.256	0.462	0.291	0.367	0.241
β_{MKT}	0.089	0.115	-0.020	0.097	0.180**	0.088	0.061	0.074	0.164*	0.090	0.048	0.075
β_{SMB}	-0.011	0.208	-0.001	0.217	-0.058	0.161	-0.065	0.165	-0.040	0.155	-0.045	0.158
β_{HML}	0.303	0.309	0.416	0.278	0.115	0.239	0.071	0.164	0.070	0.213	0.035	0.143
β_{RMW}	0.097	0.451	0.243	0.357	0.074	0.371	-0.057	0.219	0.048	0.375	-0.048	0.226
β_{CMA}	-0.307	0.350	-0.414	0.419	-0.211	0.253	-0.125	0.238	-0.259	0.262	-0.119	0.203
Adjusted R ²	-0.047		-0.027		-0.010		-0.054		-0.014		-0.059	
No. of obs.	76		76		76		76		76		76	

Excluding acquisition events												
5. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, value weighted												
α	0.276	0.418	0.110	0.399	0.583**	0.279	0.412	0.264	0.495*	0.253	0.313	0.248
β_{MKT}	0.035	0.136	0.028	0.105	0.003	0.108	-0.022	0.091	0.038	0.098	0.027	0.075
β_{SMB}	0.031	0.270	0.093	0.258	-0.119	0.180	-0.085	0.197	-0.083	0.180	-0.068	0.196
β_{HML}	-0.233	0.425	-0.363	0.367	-0.452	0.290	-0.676**	0.306	-0.395	0.272	-0.546*	0.307
β_{RMW}	0.153	0.514	-0.019	0.384	0.009	0.438	-0.230	0.359	0.172	0.375	0.046	0.288
β_{CMA}	-0.709*	0.405	-0.641**	0.297	-0.179	0.244	-0.003	0.201	-0.242	0.230	-0.038	0.212
Adjusted R ²	0.046		0.110		0.102		0.182		0.137		0.158	
6. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, equal weighted												
α	0.210	0.332	0.243	0.333	0.429*	0.231	0.311	0.214	0.377	0.232	0.297	0.219
β_{MKT}	0.051	0.100	-0.014	0.097	0.014	0.087	-0.034	0.072	0.059	0.088	-0.011	0.078
β_{SMB}	-0.058	0.193	-0.091	0.205	-0.139	0.142	-0.153	0.156	-0.134	0.144	-0.164	0.147
β_{HML}	-0.183	0.294	-0.195	0.301	-0.366	0.241	-0.357	0.240	-0.335	0.230	-0.326	0.234
β_{RMW}	0.004	0.389	0.086	0.289	-0.122	0.358	-0.055	0.244	-0.013	0.311	0.052	0.210
β_{CMA}	-0.402	0.294	-0.181	0.359	0.006	0.247	0.140	0.246	-0.073	0.261	0.138	0.239
Adjusted R ²	0.005		-0.005		0.032		0.049		0.055		0.066	
No. of obs.	77		77		77		77		77		77	
Excluding international deals												
7. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, value weighted												
α	0.207	0.450	-0.109	0.419	0.698**	0.283	0.467*	0.267	0.544**	0.255	0.346	0.254
β_{MKT}	-0.043	0.129	-0.027	0.100	-0.086	0.109	-0.097	0.103	-0.060	0.095	-0.039	0.083
β_{SMB}	-0.183	0.296	0.016	0.239	-0.275	0.186	-0.154	0.159	-0.217	0.186	-0.115	0.157
β_{HML}	-0.267	0.433	-0.355	0.359	-0.564**	0.271	-0.763***	0.283	-0.533**	0.242	-0.649**	0.283
β_{RMW}	0.020	0.483	0.004	0.394	-0.212	0.312	-0.327	0.298	-0.047	0.236	-0.067	0.225
β_{CMA}	-0.548	0.415	-0.546*	0.316	0.058	0.300	0.220	0.257	-0.024	0.271	0.153	0.259
Adjusted R ²	0.036		0.082		0.149		0.204		0.187		0.182	
8. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, equal weighted												
α	0.068	0.391	0.058	0.382	0.403*	0.235	0.382*	0.205	0.355	0.232	0.359	0.217
β_{MKT}	-0.024	0.111	-0.044	0.107	0.024	0.079	-0.025	0.065	0.047	0.088	-0.003	0.075
β_{SMB}	-0.132	0.233	-0.117	0.216	-0.303**	0.119	-0.238*	0.122	-0.295**	0.114	-0.226**	0.110
β_{HML}	-0.165	0.296	0.014	0.283	-0.319	0.207	-0.248	0.171	-0.345*	0.190	-0.265	0.164
β_{RMW}	-0.166	0.414	0.016	0.336	-0.468*	0.241	-0.285	0.199	-0.359*	0.210	-0.168	0.179
β_{CMA}	-0.269	0.332	-0.453	0.354	-0.053	0.258	-0.060	0.228	-0.075	0.273	-0.021	0.230
Adjusted R ²	-0.034		-0.025		0.074		0.054		0.089		0.055	
No. of obs.	76		76		76		76		76		76	

Table 12. Long-run portfolio performance (alternative measures of employee relations)

This table re-estimates our results in Table 6 using alternative measures of the acquirers' employee relations, either sorted on (i) the adjusted KLD score on Employee Relations, or (ii) whether the acquirer is listed in the latest BC list at the time of announcement. Excess returns are calculated either over (i) risk-free rate or (ii) industry-matched portfolio using Fama-French 49 industry classification. For value-weighted portfolios, value-weighted industry returns are used, while equal-weighted industry returns are used as benchmark for equal-weighted portfolios. Monthly regressions are performed against Fama-French (2015) five-factor model involving *MKT*, *SMB*, *HML*, *RMW* and *CMA* factors. We use Newey-West (1987) heteroscedasticity- and autocorrelation-robust standard errors. *** denotes significance at 1% level, ** at 5% level, * at 10% level respectively.

	12-month holding period excess return over				24-month holding period excess return over				36-month holding period excess return over			
	Risk-free rate		FF 49 industry portfolios		Risk-free rate		FF 49 industry portfolios		Risk-free rate		FF 49 industry portfolios	
	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error
Portfolios sorted on the adjusted KLD Employee Relations score												
1. Zero-cost portfolio on high-low employee relations score subsamples, value weighted												
α	-0.660	0.525	-0.693	0.463	0.072	0.410	0.018	0.369	0.084	0.378	0.036	0.334
β_{MKT}	0.240*	0.123	0.147	0.121	0.172	0.109	0.116	0.108	0.087	0.101	0.052	0.090
β_{SMB}	-0.118	0.241	-0.104	0.243	-0.067	0.165	-0.091	0.185	-0.029	0.156	-0.060	0.173
β_{HML}	-0.382	0.388	-0.202	0.337	-0.485	0.300	-0.419	0.282	-0.507*	0.297	-0.389	0.279
β_{RMW}	0.608	0.693	0.366	0.589	0.598	0.699	0.204	0.620	0.635	0.667	0.337	0.573
β_{CMA}	-0.339	0.480	-0.343	0.410	-0.310	0.310	-0.218	0.274	-0.296	0.313	-0.167	0.276
Adjusted R ²	0.062		0.006		0.135		0.057		0.158		0.069	
2. Zero-cost portfolio on high-low employee relations score subsamples, equal weighted												
α	-0.817**	0.373	-0.690*	0.349	-0.350	0.369	-0.273	0.294	-0.375	0.328	-0.306	0.275
β_{MKT}	0.172	0.120	0.133	0.099	0.174*	0.103	0.119	0.077	0.138	0.092	0.071	0.073
β_{SMB}	-0.007	0.203	0.055	0.150	-0.046	0.171	-0.039	0.130	-0.024	0.157	-0.014	0.122
β_{HML}	-0.295	0.392	-0.001	0.277	-0.336	0.341	-0.150	0.236	-0.356	0.326	-0.187	0.228
β_{RMW}	0.826	0.627	1.069**	0.492	0.630	0.641	0.657	0.469	0.608	0.617	0.586	0.474
β_{CMA}	-0.190	0.441	-0.280	0.417	-0.264	0.375	-0.236	0.341	-0.337	0.369	-0.259	0.335
Adjusted R ²	0.084		0.136		0.109		0.108		0.132		0.108	
Portfolios sorted on the BC list												
3. Zero-cost portfolio on listed vs. non-listed acquirers, value weighted												
α	-0.537	0.523	-0.428	0.482	-0.285	0.491	-0.141	0.438	-0.243	0.474	-0.089	0.417
β_{MKT}	0.312***	0.112	0.095	0.120	0.258**	0.107	0.027	0.108	0.233**	0.097	0.037	0.098
β_{SMB}	0.041	0.231	-0.014	0.255	-0.146	0.240	-0.097	0.195	-0.111	0.234	-0.079	0.190
β_{HML}	0.890**	0.371	0.719*	0.384	0.639**	0.303	0.619**	0.303	0.561**	0.280	0.598**	0.290
β_{RMW}	0.137	0.289	-0.271	0.315	-0.150	0.325	-0.519	0.345	-0.077	0.268	-0.385	0.274
β_{CMA}	-1.740***	0.617	-1.318**	0.638	-1.408***	0.506	-1.111**	0.479	-1.310***	0.472	-1.070**	0.454
Adjusted R ²	0.112		0.032		0.091		0.067		0.076		0.054	
4. Zero-cost portfolio on listed vs. non-listed acquirers, equal weighted												
α	-0.765*	0.423	-0.577	0.377	-0.470	0.325	-0.293	0.275	-0.468	0.341	-0.368	0.288
β_{MKT}	0.294***	0.105	0.226**	0.090	0.273***	0.102	0.235**	0.094	0.252***	0.092	0.210**	0.086
β_{SMB}	-0.219	0.242	-0.201	0.237	-0.283	0.189	-0.269	0.194	-0.240	0.187	-0.225	0.194
β_{HML}	0.772*	0.413	0.833**	0.415	0.542	0.331	0.616*	0.354	0.431	0.345	0.497	0.372
β_{RMW}	0.104	0.335	0.012	0.322	-0.165	0.348	-0.176	0.309	-0.058	0.292	-0.032	0.257
β_{CMA}	-1.873***	0.572	-1.715***	0.572	-1.531***	0.399	-1.398***	0.387	-1.331***	0.405	-1.170***	0.391
Adjusted R ²	0.128		0.107		0.153		0.130		0.120		0.087	
No. of obs.	77		77		77		77		77		77	

Table 13. Long-run portfolio performance (portfolio sorting with the conditioning variable available at deal announcement)

This table re-estimates the portfolios regressions in Tables 6 and 8, but with a portfolio sorting cut-off point free from any look ahead bias. More specifically, an acquirer is classified as high-satisfaction acquirer when its average satisfaction score in the 12-month window prior to the deal announcement is above the preceding quarter's median satisfaction score of all S&P 500 firms, with each firm's satisfaction score for a given quarter averaged over the previous two-year window. Monthly regressions are performed against Fama and French (2015) five-factor model involving *MKT*, *SMB*, *HML*, *RMW* and *CMA* factors. We use Newey-West (1987) heteroscedasticity- and autocorrelation-robust standard errors. *** denotes significance at the 1% level, ** at the 5% level, * at the 10% level respectively.

	12-month holding period excess return over				24-month holding period excess return over				36-month holding period excess return over			
	Risk-free rate		FF 49 industry portfolios		Risk-free rate		FF 49 industry portfolios		Risk-free rate		FF 49 industry portfolios	
	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error
Zero-cost portfolios on high-low satisfaction score subsamples based on current employee reviews												
1. Value-weighted portfolios												
α	0.111	0.371	0.583*	0.327	0.319	0.263	0.610**	0.268	0.315	0.246	0.579**	0.253
β_{MKT}	0.104	0.107	0.008	0.099	0.103	0.102	0.082	0.094	0.143	0.094	0.109	0.086
β_{SMB}	-0.159	0.203	-0.147	0.183	-0.189	0.181	-0.198	0.168	-0.137	0.183	-0.176	0.171
β_{HML}	-0.077	0.368	-0.063	0.315	-0.200	0.260	-0.162	0.231	-0.061	0.202	-0.011	0.192
β_{RMW}	-0.079	0.478	-0.203	0.407	-0.190	0.437	-0.382	0.383	0.041	0.346	-0.205	0.325
β_{CMA}	-0.456	0.356	-0.129	0.324	-0.360	0.225	-0.303	0.221	-0.419*	0.236	-0.380	0.228
Adjusted R ²	-0.022		-0.054		0.028		0.027		0.020		0.006	
2. Equal-weighted portfolios												
α	0.402	0.299	0.281	0.315	0.480**	0.213	0.257	0.240	0.404**	0.177	0.164	0.226
β_{MKT}	0.068	0.083	-0.046	0.067	0.036	0.073	-0.002	0.066	0.069	0.074	0.033	0.072
β_{SMB}	-0.148	0.158	-0.038	0.177	-0.084	0.142	-0.016	0.165	-0.054	0.140	0.003	0.163
β_{HML}	-0.103	0.243	-0.390	0.292	-0.169	0.170	-0.394	0.243	-0.154	0.151	-0.362	0.233
β_{RMW}	-0.108	0.384	-0.024	0.318	-0.028	0.321	0.067	0.272	0.018	0.290	0.097	0.268
β_{CMA}	-0.157	0.263	0.286	0.296	0.013	0.185	0.245	0.190	-0.097	0.192	0.115	0.182
Adjusted R ²	-0.038		-0.008		-0.040		0.020		-0.019		0.031	
No. of obs.	77		77		77		77		77		77	
Zero-cost portfolios on high-low satisfaction score subsamples based on current employee reviews, 5% winsorized												
3. Value-weighted portfolios												
α	0.079	0.369	0.563*	0.306	0.267	0.267	0.585**	0.247	0.244	0.251	0.583**	0.228
β_{MKT}	0.102	0.107	-0.003	0.092	0.123	0.105	0.065	0.089	0.162*	0.094	0.088	0.077
β_{SMB}	-0.158	0.197	-0.154	0.176	-0.197	0.176	-0.197	0.150	-0.154	0.178	-0.171	0.143
β_{HML}	-0.091	0.364	-0.037	0.276	-0.193	0.262	-0.193	0.210	-0.044	0.201	-0.041	0.170
β_{RMW}	-0.068	0.477	-0.190	0.378	-0.186	0.441	-0.402	0.352	0.042	0.351	-0.220	0.289
β_{CMA}	-0.405	0.355	-0.123	0.300	-0.362	0.218	-0.267	0.201	-0.428*	0.222	-0.347*	0.207
Adjusted R ²	-0.025		-0.052		0.032		0.046		0.027		0.017	
4. Equal-weighted portfolios												
α	0.386	0.294	0.275	0.312	0.478**	0.211	0.272	0.224	0.395**	0.175	0.186	0.204
β_{MKT}	0.033	0.082	-0.043	0.062	0.012	0.071	-0.010	0.063	0.037	0.067	0.024	0.069
β_{SMB}	-0.147	0.157	-0.058	0.159	-0.081	0.141	-0.044	0.139	-0.061	0.137	-0.022	0.135
β_{HML}	-0.133	0.230	-0.388	0.283	-0.213	0.157	-0.377*	0.216	-0.192	0.133	-0.332	0.201
β_{RMW}	-0.099	0.382	-0.040	0.286	-0.019	0.320	0.016	0.239	0.025	0.290	0.042	0.233
β_{CMA}	-0.064	0.253	0.285	0.290	0.109	0.175	0.249	0.180	0.007	0.174	0.116	0.172
Adjusted R ²	-0.043		-0.001		-0.036		0.025		-0.023		0.029	
No. of obs.	77		77		77		77		77		77	

Table A.1. Variable definitions

In this table, we provide a detailed description of how each variable we use in the main analysis is constructed.

Variable	Database Used	Definitions
Acquisition event dummy	SDC Platinum	This dummy takes value of 1 if (a) the target status is classified as a subsidiary in the SDC Platinum database and (b) the subdivision, facility, office or other relevant sub-entity sold by the target is explicitly specified in the deal data, and 0 in all other instances.
Adjusted CSR score	KLD STATS	Adjusted corporate social responsibility score from the KLD STATS database following the methodology of Manescu (2011) and Deng, Kang and Low (2013). For each of the seven categories comprising the KLD STATS database, we scale the number of strengths by the total number of strengths available in the category in that year, then we do the same for weaknesses. The net difference between the scaled strength and scaled weakness is the adjusted score for the particular category, e.g., diversity. Then, the sum of these adjusted scores for the seven categories yields the total adjusted CSR score for the firm.
Adjusted KLD Employee Relations score	KLD STATS	Adjusted score for the Employee Relations category of the KLD STATS database. The explanation for the Adjusted CSR score describes the construction methodology for the adjusted score for each of the seven KLD STATS categories.
Book-to-market	Compustat / CRSP	The book value of equity over the market value of equity. The book value of equity is defined as total stockholder equity (<i>SEQ</i>) minus (1) the liquidating value of preferred stock (<i>PSTKL</i>), or if unavailable, (2) the redemption value of preferred stock (<i>PSTKRV</i>), or if neither is available, (3) the total value of preferred stock (<i>PSTK</i>). The market value of equity is defined as fiscal year price close (<i>PRCC_F</i>) multiplied by the common shares outstanding (<i>CSHO</i>).
Cash only dummy	KLD STATS	This dummy takes value of 1 if the consideration offered part of the SDC database indicates that the deal is financed purely by cash, and 0 otherwise.
Current-all ratio	Glassdoor.com	The ratio of the number of reviews written by the employees self-identifying themselves as current employees of the acquirer to the number of all employee reviews for the acquirer in the 12-month period prior to the M&A announcement.
Diversification dummy	KLD STATS	This dummy takes value of 1 if the acquirer and the target have different first two digits of the SIC code, and 0 otherwise.
Employee satisfaction scores (all reviews)	Glassdoor.com	The average satisfaction score, either the overall score or one of the five sub-category scores (work-life balance, career opportunities, compensation and benefits, senior management, CEO approval), measured on a 5-point Likert scale with the exception of the CEO Approval score that takes a value of -1, 0 or 1 which corresponds to "disapprove", "no opinion" or "approve", averaged over all reviews completed in the 12-month time-frame prior to the M&A announcement. If there are fewer than 5 reviews over this 12-month time frame, the average satisfaction score is not used.
Employee satisfaction scores (current employee reviews only)	Glassdoor.com	The average satisfaction score constructed in the identical manner to the average scores for all reviews, but only averaged over the reviews where the employees self-identify as current employees of the firm. If there are fewer than 5 reviews over this 12-month time frame, the average satisfaction score is not used.
Firm size	Compustat	Log of the book value of total assets (<i>AT</i>).
Fortune BC list inclusion dummy	Fortune magazine	This dummy takes value of 1 if the acquirer is listed in the Fortune magazine's latest edition of the "100 Best Companies to Work For in America" at the date of M&A announcement.
Free cash flow	Compustat	Operating income before depreciation (<i>OIBDP</i>) – interest expenses (<i>XINT</i>) – income taxes (<i>TXT</i>) – capital expenditures (<i>CAPX</i>), scaled by the book value of total assets (<i>AT</i>).

G-Index	RiskMetrics	Governance index of Gompers, Ishii and Metrick (2003). As this index has been discontinued since 2009, we assign the latest available value of the G-Index for each acquirer that has been covered at least once.
Herfindahl Index	Compustat	Arithmetic sum of the squared market shares of all Compustat firms with the same first two digits of the SIC code, scaled by one hundred.
High tech dummy	SDC Platinum	This dummy takes value of 1 if both the acquirer and the target operate in the high tech industry according to the definition provided in the Appendix of Loughran and Ritter (2004) and 0 otherwise.
Industry M&A	SDC Platinum / Compustat	The sum of all merger and acquisition event transactions exceeding \$1 million reported in the SDC database for each industry-year observation, with the industry defined as the first two digits of the SIC code, divided by the sum of book value of total assets (<i>AT</i>) of all firms in the Compustat database for that industry-year.
International dummy	SDC Platinum	This dummy takes value of 1 if the acquirer and the target are from different countries and 0 otherwise.
Investment ratio	Compustat	The ratio of capital expenditure (<i>CAPX</i>) to the total net property, plant and equipment (<i>PPENT</i>). For missing values of <i>CAPX</i> , we replace it with 0.
Leverage (book)	Compustat	The sum of debt in current liabilities (<i>DLC</i>) and long-term debt (<i>DLTT</i>), divided by the book value of total assets (<i>AT</i>).
Leverage (market)	Compustat / CRSP	The sum of debt in current liabilities (<i>DLC</i>) and long-term debt (<i>DLTT</i>), divided by the market value of total assets. The market value of total assets is defined as the book value of total assets (<i>AT</i>) minus the book value of equity plus the market value of equity minus deferred taxes and investment credits (<i>TXDITC</i>) if available. For the definition of the book value of equity and the market value of equity, refer to the definition of the book-to-market variable.
Previous market-adjusted return	CRSP	The acquirer's buy-and-hold abnormal return (BHAR) calculated using the market model, with the estimation window beginning 200 trading days prior to the M&A announcement and ending 11 trading days beforehand.
Public target dummy	SDC Platinum / CRSP	This dummy takes value of 1 if (a) the target status is classified as a public target in the SDC database, (b) and the target CUSIP reported in the SDC database has a matching entry in the CRSP database for the case of U.S. domestic targets. For international targets, only the screen (a) is applied.
R&D ratio	Compustat	Ratio of total research and development expenses (<i>XRD</i>) to the book value of total assets (<i>AT</i>). For missing observations, we replace <i>XRD</i> with 0.
Relative deal size	SDC Platinum / CRSP	Deal value reported in SDC Platinum database divided by the market value of acquirer's equity (<i>PRCC_F*CSHO</i>) calculated at the end of the month preceding the M&A announcement.
Stock deal dummy	SDC Platinum	This dummy takes value of 1 if the consideration offered part of the SDC database indicates a part of the deal was financed by stock, and 0 otherwise.
Tender offer dummy	SDC Platinum	This dummy takes value of 1 if the acquirer has made a tender offer and 0 otherwise.
Tobin's Q	Compustat / CRSP	The market value of total assets divided by the book value of total assets (<i>AT</i>). For the definition of the market value of total assets, refer to the definition of market leverage.

Online appendix for “The power of silent voices: Employee satisfaction and acquirer stock performance”

O.1. BC list portfolio analysis: 5% winsorization portfolios

As Edmans (2011) reports calendar-time portfolio analysis results for both raw and 5% winsorized returns, we also analyze whether the BC list portfolios for our sample period between 2009 and 2015 exhibit different traits when the returns are winsorized at the 5% level. This essentially replicates Table 6 of Edmans (2011) and is analogous to Table 8 in our main paper. In Table O.1, we present both five- and four-factor calendar-time regression results.

TABLE O.1 HERE

Coefficients are very similar in both economic and statistical magnitudes to those obtained in Table 2, and none of the alphas turn out to be statistically significant. Thus, the lack of portfolio alphas on the BC list portfolio for the sample period of 2009-15 does not seem to be driven by a small number of outliers. In untabulated analysis, we confirm similar qualitative results when returns are winsorized at the 10% level instead.

O.2. Varying the CAR event window

Given that the CAR regression may be sensitive to our choice of event window surrounding M&A announcements, we also consider (-5, 5) and (-2, 2) as alternative windows. Table O.2 reports that our regression results do not change even when these alternative event windows are used. In a small number of specifications, the employees’ scores for work-life balance have a positive effect on the CAR with some statistical significance, yet we obtain the opposite result for their satisfaction scores on senior management. However, given the strong multicollinearity between these subcategories, we remain cautious in interpreting these results.

TABLE O.2 HERE

O.3. Carhart (1997) four-factor model

A dominant majority of the studies of short- and long-run effects of M&As on stock markets, including but not limited to studies by Gompers, Ishii and Metrick (2003), Edmans (2011) and Deng,

Kang and Low (2013), adopt the Carhart (1997) four-factor model for their empirical analysis. As a result, for direct comparability purposes, we re-estimate Tables 6 and 8 using the four-factor model, excluding the profitability and investment factors but including the momentum factors. Table O.3 presents our results for the raw and winsorized portfolio returns sorted on current employee scores.

TABLE O.3 HERE

For the portfolios sorted on current employee reviews only, the alphas over the 24-month horizon are significant at the 5% level in all but one instance. Moreover, the point estimates are broadly similar to those obtained under the Fama-French five-factor model, for both the raw and winsorized cases.

Crucially, the momentum factor appears to be largely insignificant for value-weighted portfolios, with point estimates very close to 0 in various cases. This is somewhat surprising at first sight, given that the monthly rebalancing of the value-weighted portfolios gradually assign greater weight on stocks that do well and increase in market capitalization. However, this is accounted for by the equal-weighted portfolios' negative exposure to the momentum factor, with the coefficients on the *UMD* negative and significant at the 10% level in certain instances, particularly at the 24-month horizon. In other words, high-satisfaction acquirers in our sample are unlikely to be recent winners that simply continue to do well; if anything, the exposure to the momentum factor should have a favorable effect on the returns of low-satisfaction acquirers instead. In untabulated analysis, we also perform a six-factor calendar-time portfolio analysis that adds momentum to the Fama-French five-factor model; we find that both the economic and statistical significance of the alphas remain qualitatively similar.

O.4. Post-merger operating performance

In this section, we check whether the mergers initiated by high- and low-satisfaction acquirers generate significantly different post-merger operating performance relative to their matched non-acquirers identified through nearest neighbor matching in Section 5.1. For this purpose, we follow the methodology of Healy, Palepu and Ruback (1992), regressing the difference between the post-merger pre-tax operating cash flow (Compustat item *OIBDP*)—scaled by the market value of the merged entity's total assets as defined in Table A.1—and the scaled pre-tax operating cash flow of the matched non-acquirer in the same year, on the difference between the combined pre-merger scaled operating cash flow of the acquirer and the target and the operating performance of their matched non-acquirer in the same year. Propensity score matching is performed with the inclusion of pre-merger employee satisfaction score averaged over the current employee reviews in the identical manner to Section 5.1.

As is common in the literature (e.g., Deng, Kang and Low, 2013), pre-merger and post-merger periods are defined as two years before and after the merger announcement year.

This procedure, however, requires the availability of financial information on target firms prior to merger announcements. Among our 284 M&A deals, there are only 69 deals involving public targets. When we search for U.S. domestic mergers with the requisite financial information for both target and acquirer during pre- and post-merger periods, only 26 deals satisfy the criteria. We then divide these 26 deals into two equal subsamples based on the average satisfaction score of the acquirers' current employees in the 12-month period prior to the merger announcement. We present our regression results in Table O.4.

TABLE O.4 HERE

Given that our sample is very small, our results should be interpreted with caution and in conjunction with our previous findings. Nevertheless, it is worth noting that the main result is in line with the earlier matching-firm portfolio analysis. Whereas the high-satisfaction mergers generate superior operating performance relative to their matched peers, with the intercept positive and significant at the 10% level, their low-satisfaction counterparts appear to be indistinguishable from the matched non-acquirers, with the lack of statistical significance for the intercept term. This serves as further evidence of the positive effect of employee satisfaction on the acquirer's financial performance, particularly within the context of M&As.

O.5. Calendar-time portfolio analysis by industrial sector

Even though we compare the returns of the zero-cost portfolio against both the risk free rate and the returns on the Fama-French 49 industry-matched portfolios, it is still possible that the positive alphas found in Section 4.3 are driven by industry-specific effects. In particular, the over-representation of young, educated workers in the Glassdoor user base may result in higher satisfaction scores for the internet-related high tech firms such as Google, Adobe Systems or Facebook, all of which are included in our high-satisfaction subsample. If so, an alternative hypothesis may be raised, namely that high employee satisfaction is merely a proxy for employee-conscious high tech firms.

To alleviate these concerns, we re-estimate Table 6 in Section 4.3 separately for the broad industrial sectors of the acquirers in our sample. However, since there are only 284 deals, any narrowly-defined sectoral classification results in too small a number of deals for each portfolio subsample. Thus, in Table O.5, we employ broad sectoral classification that yields the following three sectors: (i) SIC 1000-

3999, i.e., agriculture, mining, and manufacturing, (ii) SIC 4000-6999, which includes transport, telecommunications and utilities, retail and wholesale trade, and financials, and (iii) SIC 7000-8999, which includes all service industries. Even under this classification procedure, each sector consists of only around 70 to 120 deals, which leads to a large increase in the standard errors.

We use the sample median of the average overall satisfaction score for each industrial sector as the cut-off point for dividing high- and low-satisfaction subsamples. While we acknowledge that this induces look ahead bias, we opt for an ex post cut-off point as balancing the number of deal samples in the high- and low-satisfaction portfolios becomes a paramount concern given the small number of deals. In any case, the coefficient estimates remain similar—albeit with weaker significance—in all instances, when we engage in backtesting with a cut-off point available ex ante as in Table 13.

TABLE O.5 HERE

Table O.5 reveals that the superior post-M&A stock performance of high-satisfaction acquirers in comparison with the low-satisfaction acquirers is not confined to one specific industrial sector. While acquirers in the agriculture, mining and manufacturing sector post highly significant five-factor alphas, particularly at 36-month horizon with point estimates at around 0.4 to 0.6% with significance at the 1% level, the economic significance of the point estimates are strongest in the services sector at around 0.8 to 1.0%, with marginal statistical significance at the 10% level for the equal-weighted portfolios. Although we are skeptical of such implausibly large estimates given the small number of deals for the services sector, it nevertheless indicates that the positive alphas do not appear to be solely services- or manufacturing-driven. However, both the economic and statistical significance of five-factor alphas mostly disappear for the acquirers in the transport, telecommunications, trade and financial industries, suggesting that there is some evidence of discrepancy between the industrial sectors after all.

TABLE O.6 HERE

To address the concerns about high tech firms more directly, we perform a similar analysis in Table O.6 separately for high tech and non-high tech firms, with the definition of a high tech deal as specified in Table A.1. As there are only 81 high tech deals as opposed to 204 non-high tech deals, the standard errors for the zero-cost high tech portfolios are much larger than their non-high tech counterparts. Yet, we find that the point estimates are remarkably similar for high tech and non-high tech firms alike at 24- and 36-month horizons. For the case of non-high tech firms, zero-cost portfolios at 24- and 36-month horizons generate statistical significance at the 5% level in a number of instances, but the zero-cost portfolios formed among high tech deals do not generate similar statistical significance, primarily due to the small number of deal samples. It nevertheless rejects the alternative hypothesis, i.e., high-

satisfaction subsamples post superior stock performance only because they have larger proportions of well-performing high tech firms, in a resounding manner. If anything, the empirical evidence suggests the opposite, with the effect of employee satisfaction more powerful among more traditional, non-high tech acquirers.

O.6. Event-time BHAR analysis

Our main paper focuses on the calendar-time portfolio analysis as the preferred methodology for the long-run stock response. However, given the extensive debate in the literature over the relative merits of calendar-time and event-time analysis, we also check whether the analysis of BHARs qualitatively changes the key message of our main paper.

For each acquirer i , T -month holding-period BHAR beginning from the announcement month-end is its geometrically-compounded return in excess of the compounded return of a benchmark bi over the same period, more specifically:

$$BHAR_{i,T} = \prod_{t=1}^T (1 + r_{i,t}) - \prod_{t=1}^T (1 + r_{bi,t}) \quad (3)$$

As Barber and Lyon (1997) point out, however, the choice of benchmark is critical for the calculation of BHARs, given that geometric compounding can lead to a substantial difference in the estimates. In particular, they caution against the use of a diversified reference portfolio due to three sources of biases, namely new listing, rebalancing, and skewness biases. New listing and rebalancing biases refer to the fact that while the BHAR of an acquirer is calculated for a listed firm without rebalancing, benchmark reference portfolio may add new firms listed subsequent to the deal announcement and are periodically rebalanced, giving a distorted picture from the investor's perspective. Instead, they advocate the use of control-firm approach where each acquirer is matched to a listed non-acquirer at the time of deal announcement or completion based on size, book-to-market and/or other firm-level characteristics, which addresses both new listing and rebalancing biases.

However, Savor and Lu (2009) argue this approach also has serious drawbacks when the acquirer sample is small, as is the case in our paper. Due to geometric compounding, even a few extreme returns experienced by the control firms can distort the average BHAR estimates significantly, and thus the results become highly sensitive to the choice of matching procedure. In short, neither the reference-portfolio nor control-firm approaches are without potential issues within our research context. Given that the new listing and rebalancing biases are generally prominent among small firms but our acquirer sample only consists of S&P 500 firms, we opt for the reference-portfolio approach. More specifically,

we match each acquirer to one of the 32 reference portfolios based on their size, book-to-market, and investment ($2 \times 4 \times 4$) in the spirit of Fama and French (2015), with the announcement date as the point of reference for the portfolio assignment purposes. In contrast with the previous literature, we sort not only on the size and book-to-market but also investment, given the substantial difference in investment between the two satisfaction-based subsample groups.

As Lyon, Barber and Tsai (1999) point out, this methodology is also subject to skewness bias as the long-horizon BHARs are positively skewed, which induces a negative bias in the t -statistic. Thus, we report both the conventional and bootstrapped skewness-adjusted t -statistic as proposed by Johnson (1978) for one-sample analysis, based on 1000 draws of the resample size of a quarter of the original sample size for each bootstrap procedure. The critical values for the latter statistic are obtained from bootstrapped estimates, and they thus do not necessarily correspond to the conventional critical values. However, when drawing inference on the difference in BHARs between the high- and low-satisfaction subsamples, this skewness adjustment method is not applicable. Thus, given the potential skewness bias, we perform two separate tests, namely: (i) conventional t -test for the difference-in-mean, and (ii) Wilcoxon-Mann-Whitney difference-in-median test. Table O.7 presents our result for the 12-, 24- and 36-month BHARs beginning from the end of the announcement month.

TABLE O.7 HERE

Panel A of Table O.7 shows that acquirers in our sample do not post significantly positive or negative returns compared to their reference portfolios on the whole. However, whereas the stock performance of high-satisfaction acquirers gradually improves as the holding period increases, the opposite is true of low-satisfaction acquirers. At 36-month horizon, when sorted on the average satisfaction scores of current employees, high-satisfaction acquirers yield average BHAR of 9.3%, while low-satisfaction acquirers substantially under-perform their reference portfolios, with the average BHAR of -16.4%. As is clear from Panel B of Table O.7, both the conventional difference-in-mean t -test as well as the Wilcoxon-Mann-Whitney difference-in-median test report this performance gap in BHARs between high- and low-satisfaction subsamples to be highly significant.ⁱ The differences are more pronounced when the subsamples are sorted on the average satisfaction scores of current employees rather than those of all employees, once again reconfirming the importance of the sentiment of current employees as crucial to the acquirers' post-M&A stock performance.

ⁱ In untabulated analysis, both the difference-in-mean and Wilcoxon-Mann-Whitney difference-in-median tests reveal the differences in BHARs between high- and low-satisfaction subsamples at 36-month horizon to be significant at the 5% level when we re-sort the subsamples with cut-off points available to the traders ex ante.

In Table O.8, we also run BHAR regressions in a similar manner to the CAR regressions in Table 4.ⁱⁱ Since we compare the performance of acquirers relative to the reference portfolio with similar size, book-to-market and investment characteristics, acquirer-level characteristics used in CAR regressions turn out to be jointly insignificant in all specifications. Thus, we regress 36-month BHARs only on the current employee satisfaction scores and deal-level characteristics.ⁱⁱⁱ Furthermore, since the number of available observations for the 36-month BHAR is markedly smaller at around 120, the use of two-digit SIC industry dummies induces substantial noise. To address this issue, we conduct the regressions with sectoral dummies instead, based on the first digit of the SIC.

TABLE O.8 HERE

As in Table O.7, Table O.8 reveals the effect of employee satisfaction is particularly prominent at 36-month horizon. More specifically, a one-point increase in the current employees' pre-M&A overall satisfaction score is consistent with a 26% increase in 36-month BHAR, with the *p*-value of just over 1%. Moreover, sub-category scores for work-life balance, career opportunities, and compensation and benefits also turn out to be significant when considered in isolation, but not senior management or CEO approval. Thus, career opportunities is the only sub-category with strong statistical significance both under calendar-time and event-time analyses. Interestingly, the point estimate on CEO approval is negative, regardless of whether it is regressed in isolation or jointly with other sub-categories, with substantial statistical significance in a number of instances. This once again casts doubt on managerial ability as the alternative explanation for the superior performance among high-satisfaction acquirers.

ⁱⁱ Although the BHARs themselves exhibit substantial negative skewness, Jacques-Bera tests on residuals for most BHAR regression specifications do not reject the null of normality, and the acquirer-clustered standard errors may thus be used for the purpose of OLS analysis without any skewness-related concerns.

ⁱⁱⁱ We focus on the 36-month BHAR as the two-sample tests in Table O.7 show that the differences begin to materialize only at the 36-month horizon. In untabulated analysis, we also check whether the satisfaction score variables affect the 12- and 24-month BHARs. As expected, satisfaction scores—be it overall scores or sub-category scores—fail to exhibit statistical significance at these shorter horizons.

Table O.1. BC list portfolio analysis (5% winsorization)

In this table, we re-estimate the calendar-time portfolio analysis in Table 2 with the portfolio returns winsorized at the 5% level. The BC list portfolio is rebalanced each year on February 1, taking into account of the Fortune magazine's latest announcement of BC list, then all firms remain in the portfolio until January 31 of the following year. Excess returns are calculated either over (i) risk-free rate or (ii) industry-matched portfolio using the Fama-French 49 industry classification. For value-weighted portfolios, value-weighted industry returns are used, while equal-weighted industry returns are used as benchmark for equal-weighted portfolios. Monthly regressions use either (i) Fama-French (2015) five-factor model involving *MKT*, *SMB*, *HML*, *RMW* and *CMA* factors, or (ii) Carhart (1997) four-factor model that replaces *RMW* and *CMA* factors with the *UMD* factor. We use Newey-West (1987) heteroscedasticity- and autocorrelation-robust standard errors. All returns are in percent. *** denotes significance at the 1% level, ** at the 5% level, * at the 10% level respectively.

Panel A. Fama-French five-factor model

	All public firms								S&P 500 subsample							
	Excess return over risk free rate				Excess return over industry benchmark				Excess return over risk free rate				Excess return over industry benchmark			
	Equal-Weighted		Value-Weighted		Equal-Weighted		Value-Weighted		Equal-Weighted		Value-Weighted		Equal-Weighted		Value-Weighted	
	Coeff.	St. Err.	Coeff.	St. Err.	Coeff.	St. Err.	Coeff.	St. Err.	Coeff.	St. Err.	Coeff.	St. Err.	Coeff.	St. Err.	Coeff.	St. Err.
α	0.031	0.103	-0.191	0.222	-0.090	0.144	-0.216	0.155	0.020	0.127	-0.184	0.242	-0.065	0.190	-0.191	0.169
β_{MKT}	1.021***	0.040	1.141***	0.072	0.113***	0.029	0.082**	0.040	1.101***	0.050	1.162***	0.073	0.195***	0.046	0.095**	0.041
β_{SMB}	0.155**	0.072	-0.218**	0.084	-0.447***	0.055	-0.202***	0.046	0.018	0.067	-0.264***	0.083	-0.615***	0.068	-0.251***	0.047
β_{HML}	0.131	0.088	0.194*	0.115	-0.123	0.078	0.200**	0.078	0.207*	0.112	0.221*	0.118	-0.048	0.098	0.221***	0.079
β_{RMW}	0.185*	0.102	0.236	0.212	0.330***	0.090	0.173	0.135	0.227*	0.121	0.224	0.217	0.322***	0.087	0.154	0.136
β_{CMA}	-0.282***	0.098	-0.596***	0.216	-0.108	0.109	-0.309**	0.144	-0.425***	0.147	-0.657***	0.224	-0.293**	0.143	-0.345**	0.149
Adj. R ²	0.932		0.844		0.596		0.162		0.912		0.836		0.578		0.200	
Obs.	77		77		77		77		77		77		77		77	

Panel B. Carhart four-factor model

	All public firms								S&P 500 subsample							
	Excess return over risk free rate				Excess return over industry benchmark				Excess return over risk free rate				Excess return over industry benchmark			
	Equal-Weighted		Value-Weighted		Equal-Weighted		Value-Weighted		Equal-Weighted		Value-Weighted		Equal-Weighted		Value-Weighted	
	Coeff.	St. Err.	Coeff.	St. Err.	Coeff.	St. Err.	Coeff.	St. Err.	Coeff.	St. Err.	Coeff.	St. Err.	Coeff.	St. Err.	Coeff.	St. Err.
α	0.046	0.120	-0.188	0.233	-0.045	0.149	-0.203	0.159	0.064	0.150	-0.189	0.254	-0.016	0.201	-0.186	0.169
β_{MKT}	0.998***	0.035	1.104***	0.066	0.090***	0.031	0.059	0.038	1.065***	0.043	1.124***	0.067	0.162***	0.045	0.073*	0.039
β_{SMB}	0.121*	0.061	-0.250***	0.069	-0.530***	0.048	-0.231***	0.045	-0.005	0.053	-0.291***	0.070	-0.679***	0.070	-0.274***	0.047
β_{HML}	-0.039	0.045	-0.145	0.088	-0.210***	0.068	0.016	0.058	-0.078	0.053	-0.145	0.096	-0.251***	0.078	0.023	0.063
β_{UMD}	-0.026	0.055	-0.063	0.083	0.026	0.051	-0.032	0.043	-0.107*	0.061	-0.068	0.087	-0.036	0.054	-0.035	0.047
Adj. R ²	0.927		0.830		0.539		0.114		0.907		0.821		0.538		0.154	
Obs.	77		77		77		77		77		77		77		77	

Table O.2. Regression results for CAR(-5, 5) and CAR(-2, 2) windows

The table reports the results from re-estimating the OLS and 2SLS regressions in Table 4 but using (-5, 5) and (-2, 2) days around the announcement dates as alternative windows. The same set of firm-level and deal-level controls are used as in Table 4, whose estimates we omit from reporting in the table for the brevity of exposition. The first two digits of the acquirer's SIC code are used to control for the industry fixed effect. Year dummies are included in all regressions. For the case of 2SLS regressions, the ratio of current employee reviews to all reviews (current-all ratio) is used for the analysis. Standard errors are robust to heteroscedasticity and clustered at the acquirer level. *** denotes significance at the 1% level, ** at the 5% level, * at the 10% level respectively.

Panel A. CAR(-5, 5) window

Variable	CAR(-5, 5)					
	OLS: All employees			OLS: Current employees only		
	(1)	(2)	(3)	(1)	(2)	(3)
Overall satisfaction	-0.163 (1.118)	-0.207 (1.103)		-0.190 (0.856)	-0.229 (0.829)	
Adjusted KLD Employee Relations score						
Fortune BC List dummy						
<i>Sub-categories</i>						
Work-life balance			1.380 (1.377)			2.294** (1.106)
Career and opportunities			0.448 (2.014)			-0.958 (1.664)
Comp. and benefits			0.092 (1.399)			1.431 (1.438)
Senior management			-4.047* (2.212)			-4.494** (1.863)
CEO approval			3.322 (2.110)			3.740* (2.026)
<i>Firm-level variables</i>						
Adjusted CSR		-0.237 (0.348)	-0.275 (0.358)		-0.233 (0.355)	-0.426 (0.361)
Industry fixed effects	SIC2D	SIC2D	SIC2D	SIC2D	SIC2D	SIC2D
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Sample size	284	281	281	267	264	264
Adjusted R ²	0.080	0.110	0.116	0.121	0.172	0.202

Panel B. CAR(-2, 2) window

Variable	CAR(-2, 2)					
	OLS: All employees			OLS: Current employees only		
	(1)	(2)	(3)	(1)	(2)	(3)
Overall satisfaction	0.178 (0.881)	0.027 (0.870)		0.150 (0.660)	-0.035 (0.626)	
Adjusted KLD Employee Relations score						
Fortune BC List dummy						
<i>Sub-categories</i>						
Work-life balance			1.327 (0.905)			1.398* (0.812)
Career and opportunities			0.368 (1.666)			-0.637 (1.289)
Comp. and benefits			-0.312 (1.088)			0.310 (1.101)
Senior management			-2.600 (1.834)			-2.099 (1.477)
CEO approval			1.759 (1.600)			1.921 (1.466)
<i>Firm-level variables</i>						
Adjusted CSR		0.108 (0.293)	0.088 (0.304)		0.005 (0.292)	-0.086 (0.307)
Industry fixed effects	SIC2D	SIC2D	SIC2D	SIC2D	SIC2D	SIC2D
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Sample size	284	281	281	267	264	264
Adjusted R ²	0.145	0.186	0.187	0.199	0.262	0.268

Table O.3. Long-run portfolio performance (Carhart four-factor model)

This table re-estimates our results in Tables 6 and 8 using Carhart's (1997) four-factor model instead of the Fama-French (2015) five-factor model. Excess returns are calculated either over (i) risk-free rate or (ii) industry-matched portfolio using Fama-French 49 industry classification. For value-weighted portfolios, value-weighted industry returns are used, while equal-weighted industry returns are used as benchmark for equal-weighted portfolios. Monthly regressions are performed against Carhart (1997) four-factor model involving *MKT*, *SMB*, *HML*, and *UMD* factors while excluding the Fama-French *RMW* and *CMA* factors. We use Newey-West (1987) heteroscedasticity- and autocorrelation-robust standard errors. *** denotes significance at the 1% level, ** at the 5% level, * at the 10% level respectively.

	12-month holding period excess return over				24-month holding period excess return over				36-month holding period excess return over			
	Risk-free rate		FF 49 industry portfolios		Risk-free rate		FF 49 industry portfolios		Risk-free rate		FF 49 industry portfolios	
	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error
Zero-cost portfolios on high-low satisfaction score subsamples based on current employee reviews												
1. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, value weighted												
α	0.411	0.391	0.138	0.341	0.515**	0.221	0.369**	0.184	0.419**	0.189	0.295*	0.151
β_{MKT}	0.014	0.107	-0.003	0.079	0.033	0.067	-0.006	0.061	0.047	0.054	0.032	0.047
β_{SMB}	-0.060	0.201	0.043	0.183	-0.120	0.139	-0.055	0.147	-0.125	0.133	-0.103	0.136
β_{HML}	-0.272	0.273	-0.361*	0.212	-0.259*	0.146	-0.384***	0.129	-0.174	0.134	-0.271**	0.116
β_{UMD}	-0.103	0.084	-0.019	0.077	-0.064	0.072	-0.028	0.067	0.029	0.049	0.031	0.047
Adjusted R ²	-0.024		0.021		0.030		0.118		0.029		0.102	
2. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, equal weighted												
α	0.292	0.274	0.277	0.241	0.402**	0.177	0.301*	0.167	0.340*	0.171	0.260	0.172
β_{MKT}	0.074	0.091	0.002	0.092	0.078	0.067	0.018	0.059	0.093	0.068	0.028	0.068
β_{SMB}	-0.101	0.159	-0.092	0.138	-0.116	0.114	-0.109	0.095	-0.128	0.104	-0.127	0.085
β_{HML}	-0.094	0.204	-0.065	0.154	-0.156	0.132	-0.158	0.104	-0.132	0.120	-0.112	0.101
β_{UMD}	-0.047	0.076	-0.008	0.086	-0.131*	0.070	-0.114*	0.067	-0.068	0.066	-0.048	0.070
Adjusted R ²	-0.038		-0.044		0.025		0.027		0.015		0.004	
Zero-cost portfolios on high-low satisfaction score subsamples based on current employee reviews, 5% winsorized												
3. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, value weighted												
α	0.377	0.392	0.180	0.318	0.501**	0.215	0.374**	0.180	0.376*	0.193	0.299**	0.148
β_{MKT}	0.037	0.099	-0.004	0.077	0.063	0.066	-0.005	0.060	0.081	0.057	0.034	0.045
β_{SMB}	-0.039	0.197	0.028	0.178	-0.111	0.138	-0.056	0.142	-0.127	0.132	-0.093	0.122
β_{HML}	-0.278	0.273	-0.323*	0.185	-0.286**	0.143	-0.376***	0.127	-0.187	0.134	-0.264**	0.113
β_{UMD}	-0.099	0.084	-0.023	0.076	-0.077	0.068	-0.024	0.064	0.025	0.049	0.029	0.044
Adjusted R ²	-0.023		0.012		0.045		0.120		0.042		0.102	
4. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, equal weighted												
α	0.271	0.274	0.244	0.232	0.409**	0.178	0.286*	0.163	0.333*	0.172	0.246	0.168
β_{MKT}	0.073	0.085	0.020	0.076	0.058	0.056	0.020	0.058	0.073	0.053	0.034	0.066
β_{SMB}	-0.097	0.155	-0.087	0.123	-0.113	0.107	-0.112	0.089	-0.135	0.096	-0.134*	0.079
β_{HML}	-0.094	0.197	-0.118	0.141	-0.161	0.114	-0.157	0.100	-0.127	0.100	-0.106	0.099
β_{UMD}	-0.043	0.076	-0.019	0.088	-0.129*	0.066	-0.119*	0.067	-0.063	0.063	-0.051	0.071
Adjusted R ²	-0.038		-0.036		0.028		0.032		0.017		0.010	
No. of obs.	77		77		77		77		77		77	

Table O.4. Post-merger operating performance of merged entities (sorted on the acquirers' pre-merger employee satisfaction)

This table presents the operating performance regression result for the 26 merger deals on which we have the information on relevant financial variables for both the acquirers and targets, following the methodology of Healy, Palepu and Ruback (1992). These 26 deals with public targets are sorted into two equal-sized subsamples based on the average satisfaction score of the acquirer's current employees during the 12-month period prior to the merger announcement. The dependent variable is the difference between the post-merger pre-tax operating cash flow of the merged entity (Compustat item *OIBDP*), scaled by the market value of the merged entity, and that of the matched non-acquirer. For the definition of the market value of the merged entity's total assets, see Table A.1. The explanatory variable is the difference between the combined pre-merger pre-tax operating cash flow of the target and the acquirer, scaled by the combined market value of the total assets of the target and the acquirer, minus that of the matched non-acquirer. Pre- and post-merger periods are defined as two years before and after the announcement year. We match each acquirer with a non-acquirer using the nearest neighbor matching procedure for each announcement year, with the following variables used for the purpose of matching: average employee satisfaction score of the current employees, book-to-market, book leverage, firm size, and the first two digits of the SIC code. We use Newey-West (1987) heteroscedasticity- and autocorrelation-robust standard errors. Standard errors are in parentheses. *** denotes significance at the 1% level, ** at the 5% level, * at the 10% level respectively.

	Dependent variable = Difference in post-merger operating performance between the merged entity and the matched non-acquirer	
Explanatory variables	High-satisfaction subsample ($N = 13$)	Low-satisfaction subsample ($N = 13$)
Intercept	0.011* (0.006)	0.006 (0.004)
Difference between the combined pre-merger operating performance of the target and the acquirer and the matched non-acquirer	0.319 (0.250)	0.822*** (0.132)
Adjusted R^2	0.121	0.860

Table O.5. Long-run portfolio performance (by industrial sector)

This table re-estimates the portfolios regressions in Table 6, but with high- and low-satisfaction portfolios created according to the acquirer's broad industrial sector. We consider three sectors: (i) agriculture, mining and manufacturing, which corresponds to SIC codes between 1000-3999, (ii) transport, telecommunications, utilities, retail and wholesale trade, and financials, with the SIC codes between 4000-6999, and (iii) services, with the SIC codes 7000-8999. Sample median of the current employees' average overall satisfaction score in the 12-month window prior to the announcement for each industrial sector is the high-low cut-off point for each case. Excess returns are calculated either over (i) risk-free rate or (ii) industry-matched portfolio using Fama-French 49 industry classification. We use Newey-West (1987) heteroscedasticity- and autocorrelation-robust standard errors. All returns are in percent. *** denotes significance at the 1% level, ** at the 5% level, * at the 10% level respectively.

	12-month holding period excess return over				24-month holding period excess return over				36-month holding period excess return over			
	Risk-free rate		FF 49 industry portfolios		Risk-free rate		FF 49 industry portfolios		Risk-free rate		FF 49 Industry portfolios	
	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error
Agriculture, mining and manufacturing (SIC 10-39)												
1. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, value weighted												
α	0.909*	0.494	0.370	0.329	0.461*	0.239	0.365*	0.201	0.576***	0.189	0.449***	0.159
β_{MKT}	0.040	0.114	0.067	0.158	-0.008	0.067	-0.072	0.058	-0.040	0.052	-0.069**	0.029
β_{SMB}	0.195	0.279	0.131	0.235	0.060	0.182	-0.002	0.166	0.065	0.166	0.042	0.146
β_{HML}	-0.082	0.268	-0.233	0.249	-0.216	0.211	-0.319**	0.140	-0.105	0.178	-0.150	0.134
β_{RMW}	-0.298	0.439	-0.748**	0.314	-0.269	0.236	-0.448**	0.181	-0.402**	0.185	-0.197	0.157
β_{CMA}	-0.141	0.434	-0.261	0.435	0.353	0.268	0.173	0.231	0.015	0.231	0.049	0.174
Adjusted R ²	-0.024		0.086		-0.012		0.057		0.038		0.002	
2. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, equal weighted												
α	1.141*	0.590	1.095**	0.539	0.472	0.352	0.426	0.297	0.504*	0.279	0.436*	0.227
β_{MKT}	0.032	0.159	-0.150	0.150	-0.027	0.120	-0.144	0.087	-0.047	0.107	-0.142*	0.083
β_{SMB}	-0.091	0.283	-0.014	0.250	-0.162	0.180	-0.113	0.198	-0.076	0.161	-0.046	0.154
β_{HML}	-0.006	0.352	-0.234	0.316	-0.201	0.259	-0.456**	0.216	-0.171	0.198	-0.293	0.180
β_{RMW}	-0.492	0.502	-0.637*	0.380	-0.368	0.379	-0.242	0.268	-0.196	0.266	-0.048	0.239
β_{CMA}	-0.052	0.564	0.108	0.523	0.143	0.458	0.525	0.360	0.015	0.373	0.282	0.297
Adjusted R ²	-0.050		-0.026		-0.043		0.019		-0.044		0.027	
No. of obs.	77		77		77		77		77		77	
Transport, telecommunications, retail and wholesale trade, and financial (SIC 40-69)												
3. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, value weighted												
α	0.330	0.637	0.540	0.497	0.028	0.407	0.276	0.360	0.123	0.393	0.307	0.353
β_{MKT}	0.100	0.202	-0.064	0.163	0.186	0.174	0.050	0.156	0.254	0.154	0.172	0.131
β_{SMB}	-0.221	0.265	-0.140	0.302	-0.036	0.238	-0.147	0.292	-0.021	0.240	-0.164	0.286
β_{HML}	-0.068	0.456	-0.372	0.350	-0.268	0.306	-0.468*	0.271	-0.032	0.254	-0.164	0.232
β_{RMW}	0.699	0.702	0.367	0.498	0.615	0.640	0.108	0.509	0.853	0.578	0.401	0.433
β_{CMA}	0.167	0.469	0.671*	0.383	-0.260	0.439	0.174	0.387	-0.391	0.396	-0.013	0.377
Adjusted R ²	-0.004		0.002		0.033		0.001		0.068		0.010	
4. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, equal weighted												
α	-0.241	0.555	-0.659	0.558	-0.004	0.349	-0.461	0.318	0.021	0.340	-0.434	0.313
β_{MKT}	0.135	0.156	0.165	0.126	0.183	0.157	0.161	0.120	0.239	0.148	0.226**	0.108
β_{SMB}	0.003	0.262	0.097	0.286	0.005	0.213	0.019	0.269	0.034	0.210	0.043	0.266
β_{HML}	0.031	0.350	-0.648*	0.380	-0.106	0.225	-0.554*	0.314	-0.061	0.183	-0.483	0.302
β_{RMW}	0.820	0.571	0.511	0.471	0.676	0.534	0.300	0.428	0.677	0.499	0.349	0.385
β_{CMA}	0.152	0.421	0.690	0.485	-0.181	0.346	0.180	0.374	-0.309	0.328	0.067	0.369
Adjusted R ²	0.001		0.040		0.026		0.053		0.059		0.092	
No. of obs.	77		77		77		77		77		77	

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5. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, value weighted

α	0.482	0.630	0.490	0.605	1.013	0.631	0.828	0.587	0.990	0.627	0.925	0.586
β_{MKT}	0.074	0.163	-0.004	0.197	0.047	0.190	0.048	0.196	0.041	0.184	0.106	0.183
β_{SMB}	-0.446*	0.252	-0.166	0.225	-0.343	0.255	-0.244	0.249	-0.226	0.237	-0.282	0.234
β_{HML}	0.183	0.476	0.127	0.400	0.309	0.529	0.124	0.501	0.261	0.510	0.124	0.490
β_{RMW}	0.697	0.731	0.500	0.709	0.702	0.699	0.417	0.715	0.785	0.678	0.499	0.684
β_{CMA}	-0.725	0.597	-0.392	0.578	-1.087	0.872	-0.820	0.885	-1.025	0.843	-0.857	0.864
Adjusted R ²	0.029		-0.035		0.020		-0.022		0.018		-0.009	

6. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, equal weighted

α	0.460	0.583	0.614	0.529	1.044*	0.593	1.044*	0.570	0.847*	0.495	0.836	0.506
β_{MKT}	0.353***	0.132	0.324**	0.133	0.240**	0.118	0.236*	0.134	0.275**	0.113	0.278**	0.131
β_{SMB}	-0.537*	0.290	-0.367	0.245	-0.426*	0.234	-0.318	0.233	-0.378*	0.200	-0.329	0.205
β_{HML}	0.097	0.460	0.402	0.369	0.269	0.433	0.571	0.357	0.239	0.395	0.455	0.357
β_{RMW}	0.438	0.504	0.304	0.443	-0.025	0.476	-0.052	0.423	0.083	0.444	0.043	0.400
β_{CMA}	-0.908**	0.447	-1.028**	0.449	-1.108***	0.410	-1.203***	0.396	-0.877**	0.382	-0.869**	0.385
Adjusted R ²	0.077		0.031		0.050		0.034		0.044		0.031	

No. of obs.	76		76		76		76		76		76	
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Table O.6. Long-run portfolio performance (high tech vs. non-high tech deals)

This table re-estimates the portfolios regressions in Table 6 by separately considering the high tech and non-high tech deals. The definition of high tech deals follows Loughran and Ritter (2004), and for more detail, refer to Table A.1. Sample median values of the current employees' average overall satisfaction scores during the 12-month period before the announcement for the high tech and non-high tech deals are used as the respective high-low satisfaction cut-off points. Excess returns are calculated over (i) risk-free rate or (ii) industry-matched portfolio using Fama-French 49 industry classification. We use Newey-West (1987) heteroscedasticity- and autocorrelation-robust standard errors. All returns are in percent. *** denotes significance at the 1% level, ** at the 5% level, * at the 10% level respectively.

	12-month holding period excess return over				24-month holding period excess return over				36-month holding period excess return over			
	Risk-free rate		FF 49 industry portfolios		Risk-free rate		FF 49 industry portfolios		Risk-free rate		FF 49 Industry portfolios	
	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error
High tech industry												
1. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, value weighted												
α	-0.002	0.629	-0.030	0.496	0.563	0.466	0.378	0.400	0.435	0.439	0.222	0.384
β_{MKT}	0.111	0.160	0.056	0.151	0.101	0.137	0.123	0.133	0.097	0.134	0.128	0.131
β_{SMB}	0.082	0.238	0.291	0.243	-0.011	0.222	0.125	0.231	-0.030	0.217	0.098	0.221
β_{HML}	-0.076	0.569	-0.211	0.452	-0.260	0.419	-0.308	0.353	-0.216	0.394	-0.243	0.351
β_{RMW}	0.363	0.665	0.348	0.530	0.499	0.563	0.470	0.477	0.569	0.539	0.537	0.466
β_{CMA}	-0.718	0.871	-0.109	0.739	-0.408	0.711	0.046	0.687	-0.423	0.704	-0.004	0.682
Adjusted R ²	-0.025		-0.037		-0.002		-0.026		0.008		-0.021	
2. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, equal weighted												
α	0.204	0.662	0.306	0.618	0.032	0.485	0.278	0.446	0.047	0.410	0.274	0.372
β_{MKT}	0.212	0.162	0.145	0.156	0.227*	0.123	0.147	0.114	0.198*	0.117	0.134	0.105
β_{SMB}	-0.186	0.230	-0.022	0.211	-0.298	0.195	-0.262	0.217	-0.344*	0.173	-0.292	0.202
β_{HML}	-0.035	0.504	0.089	0.404	-0.157	0.388	0.052	0.317	-0.118	0.314	0.077	0.263
β_{RMW}	-0.014	0.600	-0.127	0.518	-0.187	0.488	-0.175	0.483	-0.128	0.451	-0.133	0.431
β_{CMA}	-0.758	0.636	-0.665	0.607	-0.800*	0.405	-0.598	0.372	-0.753*	0.396	-0.587	0.365
Adjusted R ²	-0.013		-0.033		0.050		-0.015		0.055		-0.007	
No. of obs.	77		77		77		77		77		77	
Non-high tech industry												
3. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, value weighted												
α	0.304	0.266	-0.096	0.356	0.503**	0.217	0.043	0.297	0.409**	0.205	-0.033	0.289
β_{MKT}	0.141	0.091	0.124	0.083	0.116	0.104	0.094	0.081	0.166*	0.095	0.133	0.083
β_{SMB}	-0.010	0.224	-0.031	0.213	0.009	0.211	-0.038	0.202	0.026	0.208	-0.030	0.200
β_{HML}	-0.118	0.235	-0.440	0.340	-0.160	0.202	-0.463	0.321	-0.114	0.174	-0.407	0.315
β_{RMW}	0.640*	0.349	0.634**	0.286	0.368	0.384	0.319	0.271	0.409	0.330	0.363	0.233
β_{CMA}	0.204	0.294	0.655**	0.302	0.053	0.277	0.401	0.251	-0.074	0.251	0.329	0.243
Adjusted R ²	0.045		0.105		-0.003		0.065		0.036		0.083	
4. Zero-cost portfolio on high-low satisfaction score subsamples based on current employee reviews, equal weighted												
α	0.399	0.395	0.315	0.313	0.384	0.308	0.557**	0.259	0.361	0.268	0.511**	0.212
β_{MKT}	0.094	0.120	0.091	0.109	0.113	0.132	0.011	0.100	0.153	0.122	0.081	0.091
β_{SMB}	-0.014	0.220	0.000	0.210	-0.012	0.215	-0.077	0.199	0.021	0.212	-0.063	0.192
β_{HML}	-0.198	0.323	0.007	0.258	-0.363	0.219	-0.230	0.177	-0.184	0.172	-0.015	0.151
β_{RMW}	0.562	0.524	0.375	0.283	0.320	0.468	-0.035	0.279	0.338	0.431	0.133	0.228
β_{CMA}	0.208	0.352	0.169	0.349	0.099	0.296	0.167	0.240	-0.189	0.194	-0.040	0.208
Adjusted R ²	0.013		-0.025		0.037		-0.039		0.045		-0.040	
No. of obs.	77		77		77		77		77		77	

Table O.7. Event-time buy-and-hold abnormal return (BHAR) approach

This table presents the results of event-time BHAR analysis. For each deal, we purchase the acquirer at the end of the announcement month and hold for a specified period of 12, 24 or 36 months. We calculate the unadjusted geometrically compounded return over the holding period. We then subtract the unadjusted geometrically compounded return of the benchmark reference portfolio return over the same period, which yields the BHAR. For each deal, we identify the benchmark portfolio by assigning the acquirer to one of the 32 Fama-French sorting portfolios based on size, book-to-market and investment (2 x 4 x 4). As this sorting portfolio is rebalanced each June, the announcement date is used as the point of reference for portfolio assignment purposes. We use the equal-weighted return of the Fama-French 32 portfolios as the benchmark. If the latest stock price information is not available to calculate the holding-period return, or if a sample has failed to reach the end of the holding period, it is discarded. Then, once the BHAR of each observation is calculated, we group the observations into two equal-sized subsamples based on the acquirer's average satisfaction score in the 12-month window prior to the M&A announcement either using (i) all reviews or (ii) current employee reviews only. All returns are in percent. Both the conventional *t*-statistic and the bootstrapped skewness-adjusted *t*-statistic are reported for the purpose of inference, with the critical values for the bootstrapped *t*-statistic empirically determined from the bootstrapped resamples. When examining the differences in BHARs between the satisfaction-based subsamples, both the conventional *t*-test and Wilcoxon-Mann-Whitney test on the difference-in-median are performed and reported. *** denotes significance at the 1% level, ** at the 5% level, and * at the 10% level, respectively.

Panel A. BHAR estimates

		Sorted on All Employee Reviews			Sorted on Current Employee Reviews Only		
		All	High	Low	All	High	Low
12-month BHAR	Estimate	-1.785	-3.087	-0.482	-2.513	-2.115	-2.912
	<i>t</i> -statistic	-1.174	-1.699*	-0.198	-1.628	-1.025	-1.263
	Bootstrapped skewness-adjusted <i>t</i> -statistic	-1.168	-1.687	-0.196	-1.625	-0.993	-1.287
	No. of Obs.	218	109	109	204	102	102
24-month BHAR	Estimate	-1.528	0.543	-3.625	-2.661	3.182	-8.504
	<i>t</i> -statistic	-0.522	0.152	-0.777	-0.878	0.725	-2.076**
	Bootstrapped skewness-adjusted <i>t</i> -statistic	-0.509	0.163	-0.749	-0.856	0.775	-2.100
	No. of Obs.	161	81	80	150	75	75
36-month BHAR	Estimate	-1.535	7.169	-10.371	-3.372	9.297	-16.463
	<i>t</i> -statistic	-0.343	1.080	-1.772*	-0.711	1.310	-2.814***
	Bootstrapped skewness-adjusted <i>t</i> -statistic	-0.327	1.174	-1.772	-0.683	1.429	-2.812*
	No. of Obs.	133	67	66	122	62	60

Panel B. Differences-in-mean and differences-in-median tests for high- and low-satisfaction subsamples

		Sorted on All Employee Reviews		Sorted on Current Employee Reviews Only	
		Mean	Median	Mean	Median
		<i>t</i> -test	Wilcoxon-Mann-Whitney test	<i>t</i> -test	Wilcoxon-Mann-Whitney test
12-month BHAR	High-Low Difference	-2.605	-1.776	0.796	-0.937
	Test Statistic (<i>t</i> -statistic or <i>z</i> -score)	-0.856	-0.878	0.257	-0.191
24-month BHAR	High-Low Difference	4.168	12.193	11.686*	13.756
	Test Statistic (<i>t</i> -statistic or <i>z</i> -score)	0.710	0.813	1.947	1.530
36-month BHAR	High-Low Difference	17.540*	19.002*	25.760***	27.869***
	Test Statistic (<i>t</i> -statistic or <i>z</i> -score)	1.980	1.832	2.791	2.712

Table O.8. BHAR regressions on deal characteristics and satisfaction scores

This table reports the results from OLS regressions of 36-month BHAR on employee satisfaction scores and other deal-level control variables. BHARs are constructed over the 32 equal-weighted Fama-French sorting portfolio on size, book-to-market and investment ($2 \times 4 \times 4$). For a detailed explanation about how each control variable is constructed, please refer to Table A.1. The first digit of the acquirer's SIC code is used to control for the sectoral fixed effect. Year dummies are included in all regressions. Standard errors are robust to heteroscedasticity and acquirer-clustered, and all variables are winsorized at 5% level. Standard errors are reported in parentheses. ***denotes significance at the 1% level, ** at the 5% level, * at the 10% level respectively.

Variable	OLS: Satisfaction scores from current employee reviews only						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Overall satisfaction	25.734** (9.951)						
<i>Sub-categories</i>							
Work-life balance		24.277** (11.437)					23.640 (14.604)
Career opportunities			24.764* (12.665)				3.589 (18.997)
Comp. and benefits				28.886** (14.046)			23.300 (16.044)
Senior management					16.815 (12.223)		50.494** (22.538)
CEO approval						-12.444 (14.663)	-94.029*** (19.180)
<i>Deal characteristics</i>							
Relative deal size	-0.026 (0.443)	-0.172 (0.438)	-0.051 (0.446)	0.002 (0.468)	-0.010 (0.448)	-0.181 (0.448)	-0.271 (0.435)
Industry M&A	-0.831 (0.936)	-1.195 (0.950)	-0.811 (0.981)	-0.744 (0.902)	-0.865 (1.020)	-1.564* (0.889)	-0.721 (0.746)
High tech dummy	10.769 (8.340)	10.952 (8.301)	11.673 (8.438)	9.160 (8.404)	10.573 (8.280)	12.199 (8.577)	4.476 (7.926)
Diversification dummy	-10.869 (10.284)	-7.457 (10.311)	-11.878 (10.450)	-11.438 (10.453)	-11.147 (10.734)	-8.180 (10.520)	-9.000 (9.243)
Public target dummy	-0.078 (11.617)	-3.843 (11.922)	-1.435 (11.769)	-1.693 (11.262)	-2.270 (11.693)	-6.732 (11.026)	1.756 (10.345)
Cash only dummy	-21.719** (10.433)	-20.307** (10.171)	-21.636** (10.655)	-20.160** (10.138)	-22.023** (10.974)	-18.432* (10.988)	-22.328** (10.346)
Stock deal dummy	-7.989 (16.683)	1.357 (15.988)	-5.953 (16.685)	-4.882 (16.816)	-7.115 (17.174)	6.412 (16.709)	9.686 (15.676)
Tender offer dummy	4.576 (20.137)	7.505 (20.334)	5.910 (20.590)	0.107 (20.196)	8.291 (20.301)	10.610 (19.025)	6.147 (18.783)
Acquisition event dummy	4.433 (13.126)	4.498 (12.350)	4.643 (13.289)	4.232 (13.803)	5.764 (13.433)	11.077 (12.185)	7.515 (12.496)
International dummy	8.281 (8.838)	9.133 (9.014)	8.668 (8.928)	8.994 (8.777)	9.247 (8.888)	10.210 (9.031)	8.301 (7.713)
Constant	-96.353** (36.789)	-101.78** (45.317)	-87.428* (45.204)	-114.97** (51.798)	-59.738 (42.357)	-5.153 (20.064)	-315.84*** (60.682)
Sectoral fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sample size	122	122	122	122	122	122	122
Adjusted R ²	0.235	0.218	0.219	0.229	0.205	0.193	0.337