

## **Family Firms, Employee Satisfaction, and Corporate Performance \***

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## **Family Firms, Employee Satisfaction, and Corporate Performance**

### **Abstract**

We investigate whether employee satisfaction in S&P 1500 companies is an effective channel through which family presence affects firm value. By using over 100,000 employee surveys we find significantly higher satisfaction and approval in employees of firms with active founders. During the recent financial crisis, compared to employees of firms without family presence, employees of founder-run companies maintain significantly higher satisfaction and approval ratings, while those of scion-run companies exhibit lower satisfaction. Additional analysis suggests that employee satisfaction helps predict subsequent Tobin's q and Return on Assets. By linking cross-sectional and time-series variations in employee satisfaction to company founders and founding-family scions, we help untangle the mixed evidence documented in prior studies of family firm performance.

**Keywords:** Family firms; Human capital; Corporate culture; Firm performance

**JEL classification:** G3, G32, J12, M14, Z1

## 1. Introduction

Prior research linking family control to firm performance shows mixed evidence: Anderson and Reeb (2003) and Sraer and Thesmar (2007) document that family firms outperform non-family firms, and Fahlenbrach (2009) reports that founder-CEO firms earn positive abnormal returns. Yet several studies show that family firms, especially those controlled by scions of the founding family, are associated with worse performance (Villalonga and Amit 2006; Perez-Gonzalez 2006; Bennedsen, Nielsen, Perez-Gonzalez, and Wolfenzon 2007; Bertrand, Johnson, Samphantharak, and Schoar 2008). Kachaner, Stalk, and Bloch (2012) report that family firms outperform their peers in bad economic times, while Lins, Volpin, and Wagner (forthcoming) find that family firms perform poorly during the recent financial crisis.

These studies suggest that family control affects firm value through capital investment, debt financing, or M&A activities. We add to this extant literature by investigating the role of corporate culture of family firms. This culture might be driven, in part, by employees being attracted to working for a charismatic founder, as well as family firms investing in their employees at higher rates to reward and retain them. Unfortunately, characteristics of this matching process are unobservable to the econometrician. We therefore follow the approach of several recent studies and proxy for corporate culture by analyzing survey-based company assessments of current and former employees.<sup>1</sup> Specifically, we use a large proprietary dataset of employee satisfaction ratings to investigate this hypothesis. The dataset comprises over 100,000

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<sup>1</sup> Edmans (2011; 2012) shows that employee satisfaction affects firm performance in a way that systematically surprises investors: From 1984 through 2011, firms listed in Fortune as the “100 Best Companies to Work For in America” generated annual abnormal stock return of about three percent. Popadak (2013) constructs measures of corporate culture based on employee reviews of the firm and show that corporate culture is positively associated with long-term firm value. Guiso, Sapienza, and Zingales (2014) document that corporate culture, measured by employees’ reviews on the integrity of top managers, is associated with firm performance. Both papers emphasize the importance of corporate culture in Finance research and the challenges due to limited data to measure dimensions of corporate culture. For related studies on national culture and corporations, see Zheng, Ghoul, Guedhami, and Kwok (2012); Griffin, Guedhami, Kwok, Li, and Shao (2015).

employee ratings assessing overall satisfaction, career development, compensation and benefits, work/life balance, senior leadership, and CEO approval for about 1,000 publicly-traded U.S. companies during the 2008-2012 period. It also contains respondents' job titles and work location, whether they are current or former employees<sup>2</sup>, and the date and time of their ratings.

Our results suggest that employees who work for firms where the founder is actively involved in the business are more satisfied with their senior leadership and their CEOs, their career opportunities and work/life balance, and their company overall. In contrast, in companies where family members other than founders are actively involved in the business, satisfaction levels generally do not differ from non-family firms. Importantly, employee assessments of their company, their career opportunities, their senior leaders and their CEO help predict subsequent Tobin's q and Return on Assets (ROA).

Because employees choose whether to rate their companies, we use a two-stage Heckman correction method to mitigate potential selection bias. We find that S&P 500 firms, firms with larger sales, more employees, shorter history, and younger CEO, R&D intensive firms, and growth firms are more likely to have employee ratings, and we control for these selection effects when assessing the impact of firm characteristics on ratings. To examine whether our results are driven by the recent financial crisis, we include interaction terms between family firm variables and a crisis indicator in our analysis. The difference in satisfaction ratings between scion firms and non-family firms significantly increases during the recent financial crisis. In contrast, satisfaction levels for founder firms only decline in line with non-family firms during the crisis. These findings are noteworthy in light of the conflicting evidence of family firm performance

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<sup>2</sup> Former employees refer to those who leave the firm at the same year when they give ratings.

during the crisis<sup>3</sup> and stress the importance of distinguishing between founders and scions. We apply propensity score matching to further control for the potential selection bias that corporations may choose to remain family firms along the corporate life cycle. In matched samples where founder firms (scion firms) are closely matched with nonfamily firms that have similar propensity of founder firm (scion firm) status and firm characteristics, we find strong and consistent results: Founder firms have higher employee satisfaction than nonfamily firms, while scion firms generally do not.

To our knowledge, this paper is the first to explore to what extent family control affects firm value through employee satisfaction. We strive to contribute to the family firm literature by showing that employee satisfaction is an important intangible asset that impacts performance as described in Edmans (2011, 2012). These results have three main implications. First, consistent with human resource management theories, organization form affects employees' views of their career, their firm, and their top management. Second, employee views of their companies, career opportunities, and leadership impact firm performance. Finally, it is important to distinguish family firms between founder-controlled and scion-controlled, since these two sets of family firms have distinct employee satisfaction and hence value implications.

The paper proceeds as follows. In section 2 we relate our study to the existing literature on family firms and employee satisfaction and develop our hypotheses. In section 3 we describe our data and econometric specifications. In section 4 we discuss our findings. Section 5 concludes.

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<sup>3</sup> See Kachaner, Stalk, and Bloch (2012) and Lins, Volpin, and Wagner (forthcoming).

## **2. Related literature and hypothesis development**

### *2.1 Family ownership and firm performance*

The existing literature has not reached a firm conclusion about the effect of family ownership on publicly traded companies. An earlier strand of papers argues that founding-family ownership and control in public firms may be less efficient than diverse ownership (e.g., Fama and Jensen, 1983; Demsetz, 1983; Shleifer and Vishny, 1997; Morck, Strangeland, and Yeung, 1998, among others). Yet over the last decade several studies have shown that founding-family presence can be advantageous to the firm. Anderson and Reeb (2003) document that families are present in one-third of the S&P 500 firms, and find that family firms outperform non-family firms. They argue that family ownership mitigates managerial short-termism and increases firm value. Anderson, Mansi, and Reeb (2003) find that family firms have lower cost of debt than non-family firms, consistent with the view that family ownership is an organizational structure that better protects stakeholders' interests, so bond holders can offer low cost of debt financing to family firms. Mueller and Philippon (2011) examine the link between family firms and labor relations and show that family ownership is more prevalent in industries that are more labor dependent and in countries with worse labor relations. Family firms seem particularly effective in managing difficult labor relations, as family firms tend to have higher employee loyalty that facilitates labor negotiations. Consistent with that view, Ellul, Pagano, and Schivardi (2013) find that family firms provide more employment protection. Employees in family firms are more willing to accept wage cuts and less likely to be fired, and family firms seem to insure their employees against economic shocks. Taken together, recent studies appear to support the view that founding-family presence mitigates short-termism and help the firm pursue long-term goals.

Recent research suggests systematic differences in valuation between family firms with active founders and those with active scions. Fahlenbrach (2009) finds that firms managed by a founder-CEO invest more in R&D and capital expenditures than firms managed by a successor-CEO and that investing in founder-run companies would have earned sizable positive abnormal returns. Founder-CEO firms seem to pursue long-term growth strategies via investments that are not fully incorporated in equity prices. Villalonga and Amit (2006) find that family ownership creates value in firms with active founders, yet destroys value in firms with active scions. Why would that be? Bennedsen, Nielsen, Perez-Gonzalez, and Wolfenzon (2007) use micro-level data from Denmark to show that family succession causes firm performance to deteriorate. Operating profitability on assets declines by four percentage points around the time a family member takes over the CEO position. Similarly, Perez-Gonzalez (2006) investigates CEO successions in public U.S. firms and documents the cost of nepotism. Firms where incoming CEOs are related to departing CEO or the founder by either blood or marriage exhibit lower operating profitability and market-to-book ratios. Both studies point out that family succession plans drastically reduce the talent pool relative to hiring a professional CEO.

## *2.2 Employee satisfaction and firm performance*

Employees have long been viewed as critical organizational assets that generate value (e.g., Maslow, 1943; Herzberg, 1959; McGregor, 1960) and are particularly important for innovation and quality (Zingales, 2000). While human resource theories argue that employee satisfaction can benefit shareholders by strengthen motivation and retention, only a few studies have investigated the link between employee satisfaction and firm value. Edmans (2011; 2012) uses annual survey data of the “100 Best Companies to Work For in America” to measure

employee satisfaction, and finds that these “Best Companies” beat the market by two to three percent per year, over a 26-year period from 1984-2009. The results suggest that employee satisfaction is beneficial for firm value, yet that the market doesn’t recognize this link. In a related study, Popadak (2013) constructs measures of corporate culture based on employee reviews of the firm and show that corporate culture is positively associated with long-term firm value. Guiso, Sapienza, and Zingales (2014) document that corporate culture, measured by employees’ reviews on the integrity of top managers, is associated with firm performance. Schneider, Hanges, Smith, and Salvaggio (2003) find that various types of employee satisfaction, such as empowerment, job fulfillment, security, pay, and work team, have positive effect on firm financial performance in terms of return on assets and earnings per share. Li, Guthrie, and Schloemer (2013) document a reciprocal relation between employee satisfaction and firm performance. While theorists have long argued that employee satisfaction is an intangible asset that positively affects firm value, empiricists have struggled to obtain comprehensive satisfaction data that exhibit significant cross-sectional and time-series variation.

### *2.3 Hypotheses development*

We propose two reasons why founding family presence may affect employee satisfaction. First, family firms, especially founder firms, tend to have strong organizational culture, and employees who identify with the culture are likely to have high satisfaction with the firm. According to Schneider (1987)’s Attraction-Selection-Attribution model, similarities among people helps to create a strong and cohesive organizational culture. The internal motivation of the founder to build her own business attracts employees who identify with her and her goals.



Consequently, family firms exhibit strong and cohesive organizational culture, which may be reflected in higher employee satisfaction and greater identification with senior leadership.

Second, family firms tend to focus more on long-term growth and invest more in intangible assets such as human capital. Prior literature has shown that family firms offer more employee protection and prioritize stable employment over dividends (e.g., Ellul, Pagano, and Schivardi, 2013; Mullins and Schoar, 2013). Family firms also spend more on employee training, have better retention of talent, and avoid layoffs during downturns (e.g., Kachaner, Stalk, and Bloch, 2012). Family firms see employees as long-term assets, and their investment in employees improve job satisfaction. It also suggests that employees in family firms may be more satisfied with compensation and benefits and with their career opportunities.

The effect of family ownership and control on employee satisfaction may differ between founder firms and scion firms. Existing studies have documented systematic differences between founder firms and scion firms in terms of investment and firm value (e.g., Fahlenbrach, 2009; Villalonga and Amit, 2006; Bennedsen et al., 2007; Perez-Gonzalez, 2006). We expect founder presence in the firm to increase employee satisfaction because founders can exhibit strong pattern of Attraction-Selection-Attribution, and they care more about the firm's long-term growth. As for scion firms, it is unclear if scion presence increases or decreases employee satisfaction. On one hand, the effect can be positive if descendants of the founder are qualified successors and share the similar long-term perspective as the founder. On the other hand, scion presence can be detrimental to human capital if the costs of nepotism are high.

We are also interested in examining to what extent employee satisfaction helps explain the difference in firm performance between family firms and non-family firms. Several studies argue that, through a bottom-up process, collective employee satisfaction affects firm

performance (eg., Schneider et al., 2003; Edmans, 2011; Li et al., 2013). Since founder firms exhibit better performance and also focus more on long-term growth, we expect intangible human capital, measured by employee satisfaction, to be an effective channel through which founding-family presence improves firm performance. Put differently, not only should employee satisfaction be higher in family firms, but increased employee satisfaction should also predict higher subsequent firm performance.

### **3. Data and methodology**

#### *3.1 Employee satisfaction*

We obtain employee satisfaction data from Glassdoor, a prominent digital enterprise, whose business centers on collecting employee ratings and reviews of their employers, including measures of satisfaction. The job satisfaction data are voluntarily self-reported by employees from a large number of companies across industries. Similar to the employee survey of the “100 Best Companies to Work for in America” (Levering and Moskowitz, 1993), employees are asked to report their satisfaction in categories such as career development, compensation and benefits, senior leadership, and work/life balance in their companies using a 5-point Likert scale. In addition, employees report their ratings of CEOs using a 3-point scale from *disapprove* to *neutral* and then to *approve*.

We start with 690,301 entries of employee satisfaction of 123,833 organizations between 2008 and 2012. After merging the satisfaction data with COMPUSTAT, EXECUCOMP, BoardEx, and CRSP, our final sample retains 102,888 observations of employee satisfaction reports from 993 large public firms in the U.S. during 2008-2012. Panel A in Table 1 reports

descriptive statistics of employee satisfaction in six different dimensions. Figure 1 and 2 document the cross-section variations among industries and the time trend of the satisfaction data.

On average, employees rate their firms around the mid-point of a 5-point Likert scale in categories such as company rating, career opportunities, and senior leadership, while they tend to view more positively on compensation and benefits, work/life balance, and CEO rating. Employees without any managerial titles report significantly higher satisfaction in dimensions of company rating, work/life balance, senior leadership, and CEO rating, while managerial employees are happier with their career opportunities and compensation and benefits. Interestingly, current employees are significantly more satisfied than former employees in all categories of ratings, and it is perhaps due to self-selection in that employees who do not like their companies choose to leave and become former employees. Compared to those who work in international countries, employees who work in the U.S. are bitterer about their firms, career opportunities, senior leadership, and CEO rating, but they report higher satisfaction about compensation and benefits and work/life balance. Given the large sample size of employee satisfaction, it is not surprising that the t-tests of mean comparison are usually significant, and we later discuss the effects of employee characteristics on job satisfaction in a multivariate regression framework.

Figure 1A and 1B represent the average employee satisfaction across industries.<sup>4</sup> In Figure 1A, in a descending order of industries ranked by the aggregate number of ratings,<sup>5</sup> there are cross-sectional variations between scores of 2.5 and 3.5, but in general there is no obvious

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<sup>4</sup> We use the definitions of the Fama-French 49 industry portfolios. For details, see Ken French's website: [http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/Data\\_Library/det\\_49\\_ind\\_port.html](http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/Data_Library/det_49_ind_port.html).

<sup>5</sup> For example, Retail industry has most ratings in the number of 27, 898, while Fabricated Products industry has fewest ratings of 15. In regressions of employee satisfaction, the potential bias caused by outliers in satisfaction ratings is mitigated by the large sample size and the fact that ratings are bounded by the score scale.

trend in the level of ratings by the number of satisfaction data clustered in industries. To control for the heterogeneity among industries, we include either firm fixed effect or industry fixed effect in regression specifications. Figure 2A and 2B show the average employee satisfaction across time.<sup>6</sup> Not surprisingly, all six dimensions of employee satisfaction exhibit similar time trend, where ratings decline during 2008-2009, remain at the bottom during 2010, and gradually bounce back since 2011. The only exception is that employee satisfaction in work/life balance appears to decrease over the entire sample period with a further dip during 2012. To control for the heterogeneity across time, we include time fixed effect in regression specifications.

We conduct a convergent validity test to examine if there are systematic biases in our sample such that employee satisfaction in this dataset cannot be generalized externally. We match the companies in our dataset with the list of the “100 Best Companies to Work For” published by *Fortune* magazine for each of the years in our dataset and examine whether companies included in the *Best 100* list have higher employee satisfaction than the rest of firms in our sample. Appendix B Table 2 shows that the number of matched companies for each year is between 37 and 51. T-tests indicate that the mean employee satisfaction for the companies on the “100 best” list is significantly higher ( $p < 0.001$ ) than the mean employee satisfaction for the rest of companies in each of the four years. Additionally, an examination of the percentile distribution of employee satisfaction scores reveals that the mean satisfaction scores for companies on the list are in the 80th or higher percentile in each of the years. In sum, these tests support the validity of our measure of employee satisfaction.

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<sup>6</sup> The employee satisfaction data in our sample start with June, 2008 and end with September, 2012. The largest number of employee satisfaction data is reported in August, 2012 in the amount of 5,546, while the smallest number is reported in June, 2009 in the amount of 1,020. In unreported tables, we also compare the number of ratings in each month of the sample, and in general there is no obvious trend in the level of ratings along the number of satisfaction data clustered in each month.

### *3.2 Family firms*

Consistent with prior literature, we define a firm as family firm when members of the founding family are top executives, sit on the board, or maintain significant stock ownership of the firm. In particular, we distinguish between firms where the founder is actively involved in the business (founder firms) and firms where family members other than founders are actively involved in the business (scion firms).

A firm is defined as founder firm when any of the following conditions is satisfied: 1. founders are among the five highest paid executives; 2. founders are board directors; 3. a founder has more than one third of stock ownership of the firm. A firm is defined as scion firm when any of the following conditions is satisfied: 1. only non-founder members of the founding family are among the five highest paid executives; 2. only non-founder members of the founding family are board directors; 3. a non-founder member of the founding family has more than one third of stock ownership of the firm. For firms that are controlled by both founders and scions, we classify them as founder firms. By our definitions, the sets of founder firms and scion firms are mutually exclusive.

Panel B in Table 1 provide summary statistics of the family firm sample. We have in total 4,232 firm-year observations of family firm variables. 28% of the observations are family firms, which is consistent with prior studies. 44% of the family firms are founder firms, which is 12% of the total firm-year observations.

### *3.3 Firm characteristics*

Data on firm characteristics come from the intersection of COMPUSTAT, CRSP, EXECUCOMP, and BoardEx. To take advantage of the high frequency data in employee

satisfaction, we use quarterly data in most firm-specific variables except the number of employees, advertising expense, CEO characteristics, and managerial ownership, which are annual data. The boundary of our final sample is set by EXECUCOMP, BoardEx, and the satisfaction data. EXECUCOMP and BoardEx provide compensation and board data of the S&P 1500 firms, and the time period of the satisfaction data is from 2008 through 2012. Our final sample covers 1034 firms out of the S&P 1500 firms during 2008-2012. Panel C in Table 1 provides summary statistics of quarterly firm characteristics, including firm size, firm age, financing policy, investment policy, payout policy, institutional ownership, CEO characteristics, stock returns, operating performance, and firm valuation.

### 3.4 Econometric specifications

Our empirical model of the effects of founding-family control on employee satisfaction is a linear specification,

$$y_{ijkt} = \alpha + \beta Founder_{jkt} + \gamma Scion_{jkt} + \theta' z_{ijkt} + \eta' x_{jkt-1} + \delta' \mu_j + \varphi' v_t + \varepsilon_{ijkt}, \quad (1)$$

where the indices  $i, j, k$ , and  $t$  correspond to employee, firm, industry, and year, respectively.

The outcome variable,  $y_{ijkt}$ , is a measure of employee satisfaction, such as company ratings, career opportunities, compensation and benefits, work/life balance, senior leadership, and CEO ratings. The covariate  $Founder_{jkt}$  is an indicator variable that equals one if a firm is founder firm at a given year and zero otherwise. The covariate  $Scion_{jkt}$  is an indicator variable that equals one if a firm is scion firm at a given year and zero otherwise. The vector  $z_{ijkt}$  denotes employee characteristics, such as her job title, work location, and whether she is a current or former employee of the firm. The vector  $x_{jkt-1}$  contains firm-specific characteristics. Firm and

year fixed effects are represented by the error components  $\mu_j$  and  $\nu_t$ , respectively. Finally,  $\varepsilon_{ijkt}$  is the employee-year specific error term that is assumed to be heteroskedastic.

We apply the two-stage Heckman correction method to control for the selection bias in the employee satisfaction data, as the ratings are self-reported and hence are a non-randomly selected sample. At the first stage, we estimate a selection equation using the Probit model, where we identify firms with employee satisfaction data as the treatment firms and use the industry average propensity of having ratings as an instrument. At the second stage, we include the inverse Mills ratio in Equation (1) to control for selection bias. We acknowledge that corporations do not randomly become family firms or non-family firms, and thus there may be selection bias in *Founder* and *Scion* variables. We intend to use propensity score method to control for selection bias in family firm variables in the next version of the paper.

Our empirical model of the effects of employee satisfaction on firm performance is a linear specification,

$$y_{jkt} = \alpha + \beta \overline{ES}_{jkt-1} + \gamma' x_{jkt-1} + \delta' \mu_k + \varphi' \nu_t + \varepsilon_{jkt}, \quad (2)$$

where the indices  $j$ ,  $k$ , and  $t$  correspond to employee, firm, industry, and quarter, respectively.

The outcome variable,  $y_{jkt}$ , is a measure of firm performance, such as Tobin's  $q$ , and ROA. The covariate  $\overline{ES}_{jkt-1}$  is the average ratings of employee satisfaction in a quarter within a firm. The vector  $x_{jkt-1}$  contains firm-specific characteristics. Industry and year fixed effects are represented by the error components  $\mu_k$  and  $\nu_t$ , respectively. Finally,  $\varepsilon_{jkt}$  is the firm-year specific error term that is assumed to be correlated within firms and heteroskedastic.

A potential econometric issue arises from the endogenous matching between employees and firms. It is possible that employee satisfaction reflects the labor market matching between

employee quality and firm quality so that unobserved firm variables drive both employee satisfaction and firm value. We acknowledge that it is difficult to draw causal inference from Equation (2). In the next version of the paper, we hope to use the high frequency in time series and the geography of work location in the employee satisfaction dataset to look for exogenous variations in job satisfaction.

## **4. Results**

### *4.1 Univariate analysis*

Panel A in Table 2 reports the univariate comparison of employee satisfaction across three types of firms, founder firm, scion firm, and non-family firm. First, compared to non-family firms, founder firms have significantly higher employee satisfaction in all six categories. Second, compared to non-family firms, employees in scions firms are happier in terms of company rating, career opportunities, and work/life balance, but their satisfaction levels are lower with respect to senior leadership and CEO approval. Their views do not differ from their peers' in non-family firms when it comes to compensation and benefits. Third, founder firms have employee satisfaction significantly higher than scion firms in all six dimensions. These results are consistent with prior literature that founder firms are significant different from scion firms not only in organizational form but also in intangible assets such as human capital. It also motivates that we need to distinguish between founder firms and scion firms when investigating the effects of family firms.

Panel B in Table 2 shows correlation matrix among employee satisfaction across categories of career opportunities, compensation and benefits, work/life balance, senior leadership, and CEO rating. Intuitively, each of the six dimensions is significantly and positively



correlated with the others. Yet some of the correlation coefficients are lower than 0.5, suggesting each dimension also carries unique information about employee satisfaction. Overall, company rating consistently have the largest correlation coefficients with other five categories, confirming that employee satisfaction in company rating is a comprehensive index reflecting how an employee view her firm, her career development, and her management.

In sum, results in Table 2 provide support to our hypotheses that founder firms and scion firms differ in intangible assets such as human capital, and that the human capital premium in family firms documented in prior studies may come mainly from founder firms. The consistency in correlation matrix among dimension of ratings reassures us of the high quality of the satisfaction dataset.

#### *4.2 Multivariate analysis*

We use multivariate regression frameworks to control for employee characteristics and firm characteristics so that we can isolate the effects of family firms on human capital and firm value. The econometric specifications are discussed in section 3.4.

Table 3 reports the effects of founder firms and scion firms on employee satisfaction. As discussed in previous section, given the nature of the self-reported employee satisfaction, we apply the two-stage Heckman correction method to control for the selection bias in the satisfaction data. Panel A in Table 3 presents the first stage results. We estimate a selection equation using the Probit model, where we identify firms with employee satisfaction data as the treatment firms and firms without employee satisfaction data as the control firms. We use the industry average propensity of having employee ratings for a firm as an instrument. The results of the Probit model show that that S&P 500 firms, firms with larger sales, more employees,

shorter history, and younger CEO, R&D intensive firms, and growth firms tend to have higher probability that employees rate their firms. Interestingly, being a founder firm or scion firm does not affect the probability of a firm having employee ratings, which further mitigate the concern that family firms may have more severe selection bias of satisfaction data availability. Panel B in Table 3 presents the second stage results. We estimate an outcome equation using panel regressions with fixed effects, where the inverse Mills ratio is included to control for selection bias in employee satisfaction. Employees in a founder firm report significantly higher satisfaction in company ratings, career opportunities, compensation and benefits, work/life balance, senior leadership, and CEO rating. Compared to non-family firms, employees in scions firms do not exhibit significantly different satisfactions in five out of six dimensions. The regression results confirm the univariate comparisons in Table 2 and provide strong evidence that the human capital premium in family firms is concentrated mostly in founder firms.

Table 4 report results of the outcome equation with interaction terms between crisis dummy and indicator variables of founder firms and scion firms. Motivated by Figure 2, we define the crisis dummy to equal one during 2008-2010, allowing employee satisfaction to fully adjust to the impact of the recent financial crisis. Table 4 shows that during financial crisis, compared to employees of firms without family presence, employees of founder-run companies maintain significantly higher satisfaction and approval ratings, while those of scion-run companies exhibit lower satisfaction. Moreover, the difference in satisfaction ratings between scion firms and non-family firms significantly increases during the recent financial crisis. In contrast, satisfaction levels for founder firms only decline in line with non-family firms during the crisis. This finding is consistent with prior literature that shows family feud among scions fighting for corporate control is especially costly to the firm during economic downturns.

In Table 5, we test robustness of the baseline results. In Panel A, we only include reviews by current employees in the sample for tests. After losing 15% of the observations, we find that the majority of our baseline results are robust: founder-run firms have significantly higher satisfaction in company rating, career opportunities, senior leadership, and CEO approval than non-family firms, while scion firms do not differ from non-family firms except in CEO ratings. In Panel B, to alleviate the concerns that our results may be driven by firms that have extremely large number of employee reviews, we exclude employee satisfaction data of the top 10 firms ranked by total reviews, which account for 23% of the employee ratings in the sample. After the exclusion, we find results very similar to the baseline. In Panel C, instead of using employee level satisfaction data, we aggregate ratings on firm/year level. To mitigate the concern that firm/year average ratings may be biased when the number of employee reviews for a firm is too small, we apply the restriction that each firm is required to have at least 20 reviews per year.<sup>7</sup> We show that firms with active founders have significantly higher satisfaction in company rating, career opportunities, and senior leadership than non-family firms.

In Table 6, we test the effect of founding family presence on employee satisfaction by controlling for the covariates that predict founder and scion status in propensity-score matched samples. During the corporate life cycle, founding-families either remain in control or give up their control rights. Hence, the presence of family control that we observe is the result of founding-family's self-selection, which is likely confounded by firm characteristics such as firm age. Although in the baseline model we already control for a set of control variables documented in prior literature, we further construct a matched sample in which two groups of firms have similar firm characteristics but differ in founder firm status. The treatment group consists of only founder firms, while the control group consists of only nonfamily firms. We apply propensity

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<sup>7</sup> In untabulated tests, we change the cutoff to 10, 30, or 40, and the results are quantitatively similar.

score matching to Probit model that predicts founder firm status, with caliper = 1%, the nearest neighbor, and no replacements to determine the treatment group. Similarly, we construct another match sample of scion firm vs. nonfamily firm.

Panel A of Table 6 presents the Probit results of predicting founder firm status and scion firm status, respectively. We find that, compared to nonfamily firms, younger firms, smaller firms, firms with higher managerial ownership, lower debt ratio, and more volatile stock returns are more likely to be run by founders. Compared to nonfamily firms, firms run by scions are older, larger, less preferred by institutional investors, and more likely to be owned by top managers and included in the S&P 500 index. Both Probit models have statistics of AUC (area under ROC curve) that are comfortably above the threshold of 0.70 suggested by Hosmer and Lemeshow (2000). We then apply propensity score matching with caliper = 1%, the nearest neighbor, and no replacements to determine the matched sample of founder firm vs. nonfamily firm and the matched sample of scion firm vs. nonfamily firm. Then in Panel B of Table 6 we compared the firm characteristics between the treatment group and the control group in each of the matched samples. Column (1), Panel B, Table 6 shows that founder firms in the matched sample on average have firm characteristics that are not significantly different from nonfamily firms.<sup>8</sup> Similarly, Column (2), Panel B, Table 6 shows that scion firms in the matched sample are generally not different from nonfamily firms, although scion firms tend to be larger, less likely to be included in the S&P 500 index, and more likely to have available employee satisfaction data than nonfamily firms. Finally, in Panel C and D of Table 6 we estimate the effect of founding family presence on employee satisfaction in matched samples of founder firm vs. nonfamily firm and scion firm vs. nonfamily firm, respectively. Consistent with previous results, in subsamples where the propensity of founding family presence are closely matched, we find that founder

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<sup>8</sup> In the matched sample, founder firms are more likely to be in the S&P 500 index with p-value of 0.09.

firms have higher employee satisfaction than nonfamily firms, while scion firms are generally not different from nonfamily firms in terms of employee satisfaction except for ratings on leadership.

Table 7 presents the effects of employee satisfaction on firm value. Higher employee assessments of their company, their career opportunities, their compensation and benefits, their senior leaders and their CEO are significantly associated with subsequent higher Tobin's q, suggesting human capital improve firm value. Table 8 presents the effects of employee satisfaction on firm profitability. Higher employee satisfaction in company rating, career opportunities, senior leaders and CEO rating are significantly associated with subsequent higher ROA, suggesting human capital improve firm operating performance. Taken together, employee satisfaction is significantly and positively associated with subsequent firm performance measured by market valuation and accounting performance. In Table 9, we orthogonalize career opportunities, compensation and benefits, work/life balance, senior leadership, and CEO approval with respect to company rating, and then we show that after controlling for company ratings, the marginal effects of employee satisfaction on leadership continue to positively predict subsequent firm performance. Interestingly, the more satisfied employees are with compensation and benefits, the lower subsequent ROA becomes. It may imply that employee satisfaction on compensation and benefits capture the effect of labor costs.

In sum, results in Table 3 establish that employees that work for founder firms have higher satisfaction levels across categories of overall company ratings, career opportunities, compensation and benefits, work/life balance, senior leadership, and CEO ratings. In contrast, in scion firms satisfaction levels generally do not differ from non-family firms. Table 4 further shows that the dichotomy of human capital between founder firms and scion firms becomes more

severe during the recent financial crisis. Table 5 shows that the baseline results are robust to various scenarios. Table 6 shows consistent results in matched samples. Results in Table 7, 8, and 9 suggest that employee assessments of their company, their career opportunities, their senior leaders and their CEO help predict subsequent Tobin's q and Return on Assets (ROA). Together these findings provide evidence that founding-family control affects firm value through the channel of intangible assets such as human capital.

#### *4.3 Endogeneity*

Our analysis raises several endogeneity concerns. First, the job satisfaction data are voluntarily self-reported by employees, so the availability of employee ratings is endogenous. To mitigate this selection bias, we apply a two-stage Heckman correction method. At the first stage, we estimate a selection equation using a Probit model, where we identify firms with employee satisfaction data as the treatment firms and firms without employee satisfaction data as the control firms. We use the industry average propensity of having employee ratings as an instrument. We find that S&P 500 firms, firms with larger sales, more employees, shorter history, and younger CEOs, R&D intensive firms, and growth firms tend to have higher probability that employees rate their firms. At the second stage, we include the inverse Mills ratio in the outcome equation to control for selection bias. Second, almost all companies start out as family firms. During the corporate life cycle, founding-families either remain in control or give up their control rights. Hence, the presence of family control that we observe is the result of founding-family's self-selection, which is likely confounded by covariates such as firm age. We control for this potential selection bias by propensity score matching, where founder firms are closely matched with nonfamily firms that have similar propensity of founder firm status and

similar firm characteristics. We also construct a matched sample of scion firm vs. nonfamily firm. In both matched samples, we find strong and consistent results: Founder firms have higher employee satisfaction than nonfamily firms, while scion firms generally do not. Third, another econometric issue arises from the reverse causality between employee satisfaction and firm performance. It is quite plausible that higher market valuation or profitability increases employee satisfaction. Given that market valuation, firm profitability, and employee satisfaction are relatively stable over time, our current specifications, which rely on fixed effects and lagged independent variables, may not adequately address this reverse causality issue. The high frequency of employee ratings might allow us to exploit exogenous time-series variations in job satisfaction to establish causality between employee satisfaction and firm performance. Moreover, we can trace the job locations of employees in our dataset and use the geography of work locations to look for instruments of employee ratings.<sup>9</sup> While we acknowledge that we mainly mitigate the selection bias in employee ratings and founding family presence in the current version of this paper, we plan to use the rich cross-sectional and time-series variations in our large dataset to address other endogeneity issues in the next version of the paper.

#### *4. 4 Additional robustness checks*

In untabulated tests, we examine the robustness of our results in additional specifications. First, we verify that all of our results remain quantitatively similar if we replace Fama-French 49 industries with two-digit SIC codes. Second, in the outcome equations of Table 3, 4, and 5 (except Panel C) we control for heteroskedasticity of the error term in Equation (1), but do not cluster standard errors at the firm level because this assumes serial correlation at the firm level in

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<sup>9</sup> For prior studies using geography as instruments in corporate governance literature, see Becker, Cronqvist, and Fahlenbrach (2011); Knyazeva, Knyazeva, and Masulis (2013).

the error terms of employee-level ratings. As a robustness check, we also cluster standard errors by firm in the second-stage outcome equations in Table 3, 4, and 5, and verify that the coefficients on the *founder firm* variable remain significantly positive. Note that in Equation (1), the error term is at employee/time level, which deviates from the typical firm/year panel setting in Petersen (2009). Third, instead of using firm/quarter panel data, we use firm/year panel data in Table 6, 7 and 8 and find quantitatively similar results. Fourth, we construct a matching sample using nearest-neighbor matching on firm and CEO characteristics, and founder firms exhibit significantly higher company ratings than the control group of non-family firms. Lastly, we define a firm in a given year as a founder firm if founders are among the five highest paid executives of that firm during the year, and the coefficients of the *founder firm* variable in Panel B of Table 3, Table 4, and Table 5 remain significantly positive. In sum, we find evidence that our regression results are robust to alternative variable definitions and econometric specifications.

## 5. Conclusions

Family businesses are the oldest and most common form of economic organization which account for 64% of the United States' gross domestic product (GDP).<sup>10</sup> Many studies examine how family businesses differ from companies that are run by hired managers and controlled by dispersed and intermediated owners. Our study investigates whether family firms put a greater emphasis on developing the human capital of their employees, which constitutes an important

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<sup>10</sup> See the KPMG report in [www.kpmgfamilybusiness.com/american-family-small-business-facts-infographic/](http://www.kpmgfamilybusiness.com/american-family-small-business-facts-infographic/).



intangible asset that has been shown to improve firm performance. We ask whether employees in family firms are more satisfied with various aspects of their work environment, and whether such satisfaction increases firm performance (Edmans 2011, 2012).

Using a unique dataset with about 100, 000 employee satisfaction ratings in large U.S public firms from 2008 through 2012, we find that employee satisfaction is an important channel through which founding-family control affects firm value. We show that employees that work for founder firms rate their companies, their senior leadership, and their CEO more highly and are more satisfied with their compensation and benefits, their career opportunities, and their work/life balance. In contrast, employee satisfaction in scion firms generally does not differ from non-family firms. Compared to non-family firms, scion firms exhibit significant lower human capital during the recent financial crisis, while founder firms generally do not. Finally, our results suggests that Tobin's q and Return on Assets (ROA) increase with employee assessments of their company, their career opportunities, their senior leaders and their CEO. Taken together, these finding provide evidence that founder-family control affects firm value through the channel of intangible assets such as human capital.

We contribute to the literature on family firms by proposing and analyzing publicly observable measures of employee satisfaction, which allows us to quantify the effect of an important, yet difficult-to-assess, intangible asset. As emphasized by the human resource management literature, specifics of corporate organization form affect employees' views of their career, the firm, and top management. We show that survey results of employee-level

satisfaction, aggregated to the firm level, are positively associated with subsequent firm values. Finally, we separate family firms into founder firms and scion firms and document that founder firms systematically differ from scion firms with respect to employee satisfaction, which, in turn, has implications for firm value.

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## **Appendix A. Variable definitions**

### **Employee satisfaction**

Career opportunities: A score on career opportunities rated by an employee in a 5-point Likert scale: *very dissatisfied, dissatisfied, neutral, satisfied, and very satisfied*.

CEO rating: A score on the approval of CEOs rated by an employee in a 3-point scale: *disapprove, no opinion, and approve*.

Company rating: An overall score of a company rated by an employee in a 5-point Likert scale: *very dissatisfied, dissatisfied, neutral, satisfied, and very satisfied*.

Compensation and benefits: A score on compensation and benefits rated by an employee in a 5-point Likert scale: *very dissatisfied, dissatisfied, neutral, satisfied, and very satisfied*.

Senior leadership: A score on senior management rated by an employee in a 5-point Likert scale: *very dissatisfied, dissatisfied, neutral, satisfied, and very satisfied*.

Work/life balance: A score on work/life balance rated by an employee in a 5-point Likert scale: *very dissatisfied, dissatisfied, neutral, satisfied, and very satisfied*.

### **Employee characteristics**

Current employee: Equal to one if the employee is a current employee of the reviewed firm and zero otherwise.

Manager: Equal to one if the employee holds a managerial title and zero otherwise.

US rating: Equal to one if the employee works in the U.S. and zero otherwise.

### **Family firm characteristics**

Family firm: Equal to one for a firm in a given year when members of the founding family are top executives, sit on the board, or maintain more than one third of stock ownership of the firm.

Founder firm: Equal to one for a firm in a given year when any of the following conditions is satisfied: 1. founders are among the five highest paid executives; 2. founders are board directors; 3. a founder has more than one third of stock ownership of the firm.

Scion firm: Equal to one for a firm in a given year when any of the following conditions is satisfied: 1. only non-founder members of the founding family are among the five highest paid executives; 2. only non-founder members of the founding family are board directors; 3. a non-

founder member of the founding family has more than one third of stock ownership of the firm. For firms that are controlled by both founders and scions, we classify them as founder firms. By our definitions, the sets of founder firms and scion firms are mutually exclusive.

### **Firm and CEO characteristics**

Assets: Firm's total assets.

Book leverage: Debts / Assets.

Capex intensity: CAPEX/Assets.

Cash ratio: Cash / Assets.

CEO age: CEO's age.

CEO-Chairman indicator: Equal to 1 if the CEO is also chairman of the board.

CEO tenure: The length of years the executives has been served as CEO.

Crisis: Equal to one if the time is within the period of 2008-2010 and zero otherwise.

Debt ratings – investment grade: Equal to one if the S&P debt ratings are in the investment grade and zero otherwise.

Debt ratings – speculative grade: Equal to one if the S&P debt ratings are in the speculative grade and zero otherwise.

Dividend yield: Dividend per share / Price per share.

Employee satisfaction indicator: Equal to one if there is at least one employee satisfaction report for a firm in a year and zero otherwise.

Firm age: The number of years since the firm's stock returns data first appeared in CRSP.

Industry avg. of ES indicator: The average of employee satisfaction indicator for firms within an industry.

Institutional ownership: Percentage of institutional ownership.

Managerial ownership: Percentage of ownership by the five highest paid executives.

Market-to-Book: Ratio of market value of assets to book value of assets.

Number of employees: Number of employees in a fiscal year.



R&D intensity:  $\text{R\&D expenditure} / \text{Assets}$ .

R&D intensity indicator: Equals one if R&D Intensity is positive.

Revenue/employee:  $\text{Sales} / \text{Number of employees}$ .

Reviews/employee:  $\text{Number of employee reviews} / \text{Number of employees}$ .

ROA: Return of operating income before depreciation scaled by assets.

S&P 500: Equal to one if the firm is included in the S&P 500 index and zero otherwise.

Sales: Firm's total sales.

Sale growth:  $(\text{Sales}_t - \text{Sales}_{t-1}) / \text{Sales}_{t-1}$ .

Stock return: Average of monthly stock returns in a fiscal year.

Stock volatility: Standard deviation of monthly excess returns in a fiscal year.

Tobin's q: Ratio of market value of assets to book value of assets.

## Appendix B. Employee satisfaction

**Table B1 – Screenshot of employ reviews of a firm**

Table B1 presents a screenshot of the review page by an employee of Apple Inc. as an example. The star rating represents the company rating. There are five subgroups of employee satisfaction: *Culture & Values*, *Work/Life Balance*, *Senior Management*, *Comp & Benefits*, and *Career opportunities*, each in a 5-point Likert scale. Employees also report their ratings of their CEOs in a 3-point scale, *disapprove*, *no opinion*, and *approve*.

Dec 28, 2013

1 person found this helpful

★★★★★

Culture & Values  
Work/Life Balance  
Senior Management  
Comp & Benefits  
Career Opportunities

Approves of CEO

**“The best company I have worked for, with plenty of management support, great pay, and satisfaction of products.”**

**Anonymous Employee** (Current Employee)  
Austin, TX

I have been working at Apple full-time for more than a year

**Pros** – Great pay/benefits.

Salaried positions paid hourly for OT.

Full gym/exquisite cafeteria on-campus.

Great management support.

Plenty of movement opportunities.

Rewards for hard work.

Machines and systems are easy to use and get support for.

**Cons** – Can be a little tough to discover new employment opportunities within the company.

Not everyone is motivated to be part of the betterment of Apple as things get a little too corporate at times.

Personal life is often asked to be put on hold in order to "meet company needs." Would be better that the company do what it takes and not ask more of their employees that already put in their dues.

**Advice to Senior Management** – Be kind, be helpful, and help people move to the position you are at just like you want to move on yourself.

**Yes, I would recommend this company to a friend** – I'm optimistic about the outlook for this company

**Table B2 - Comparison of firms identified as being the “100 Best Companies to Work For” vs. other Firms**

Table B2 represents a convergent validity test to examine if there are systematic biases in our sample such that employee satisfaction in this dataset cannot be generalized externally. We match the companies in our dataset with the list of the “100 Best Companies to Work For” published by *Fortune* magazine for each of the years in our dataset and examine whether companies included in the *Best 100* list have higher company rating than the rest of firms in our sample.

	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
N of matched firms	38	37	43	49	51
Mean of matched firms	3.58 (n=38)	3.54 (n=37)	3.43 (n=43)	3.52 (n=49)	3.38 (n=51)
Mean of non-matched firms	3.18 (n=560)	3.09 (n=533)	3.06 (n=997)	3.06 (n=1323)	2.96 (n=1591)
Difference in mean	0.40***	0.46***	0.37***	0.46***	0.42***
Matched firm percentile position	>80%	>85%	>80%	>85%	>80%

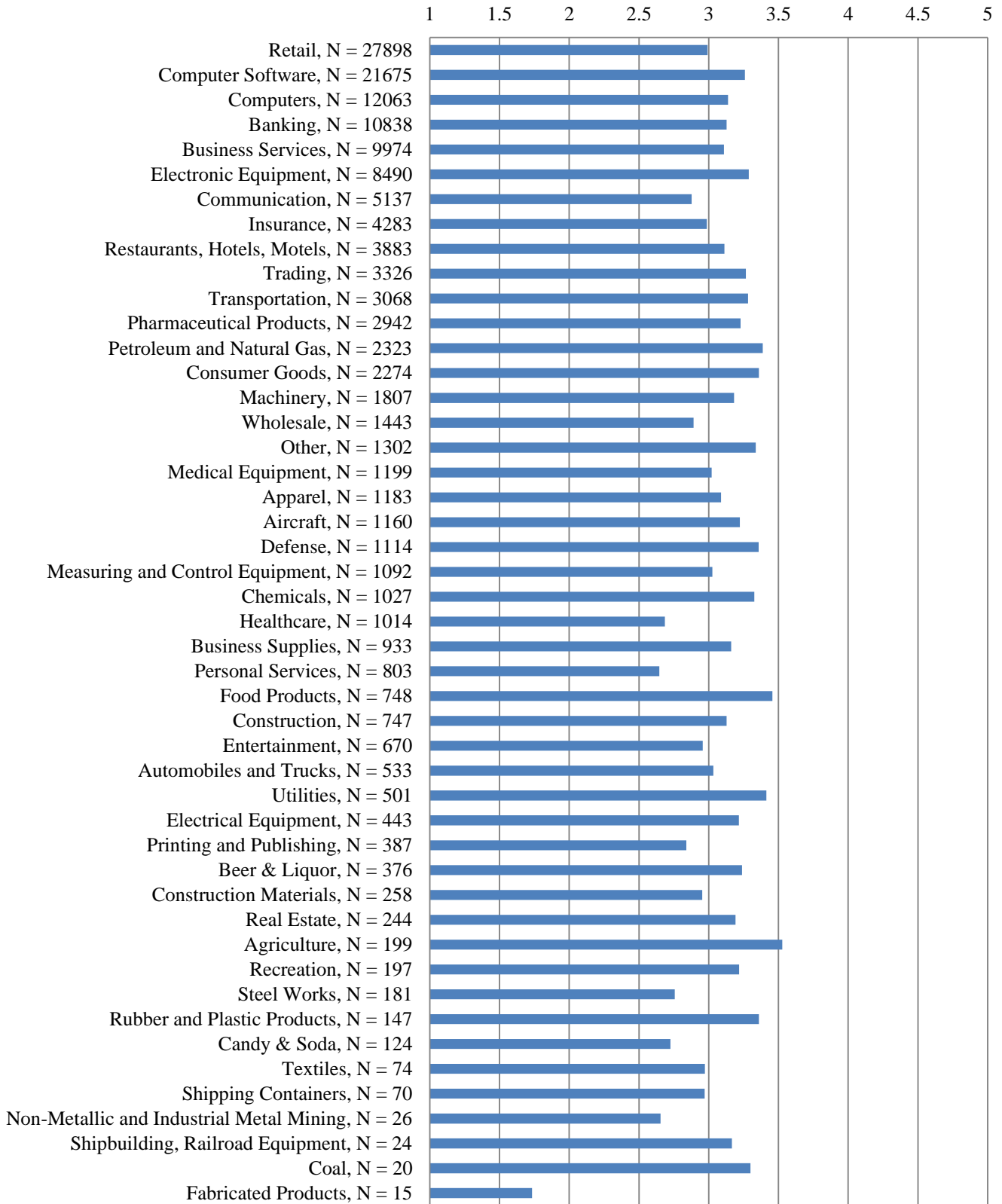
\*p < 0.05, \*\*p < 0.01; \*\*\*p<0.001 (two-tailed)

## **Figure 1 - Average employee satisfaction by industries**

### A. Average company rating by industries

In Figure 1A, for each industry, we take the average of employee satisfaction scores on company rating within that industry and display the average company ratings across the 49 industries by descending order of industries ranked by the aggregate number of ratings for each industry.

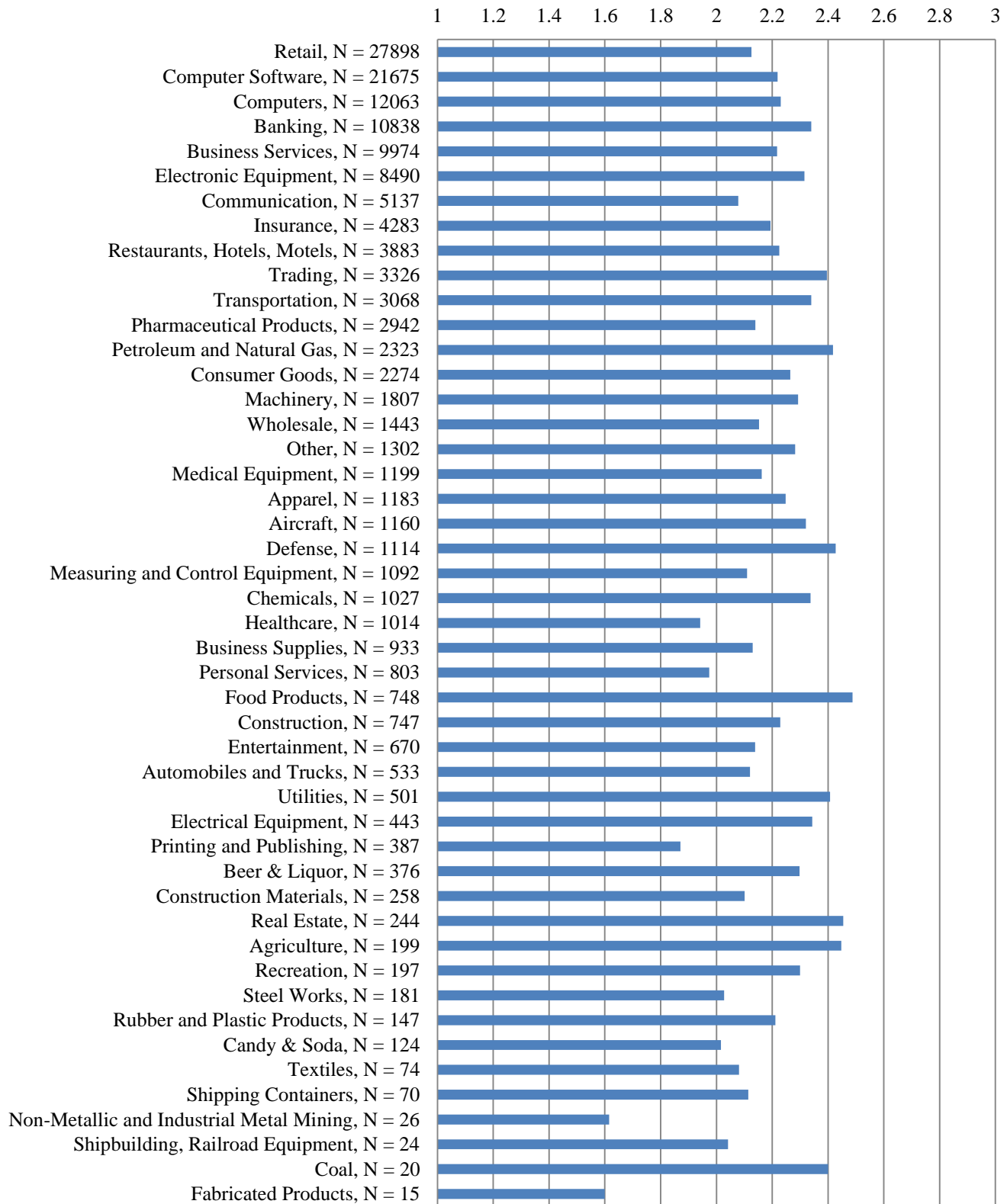
## Average company rating by industries



## B. Average CEO rating by industries

In Figure 1B, for each industry, we take the average of employee satisfaction scores on CEO rating within that industry and display the average CEO ratings across the 49 industries by descending order of industries ranked by the aggregate number of ratings for each industry.

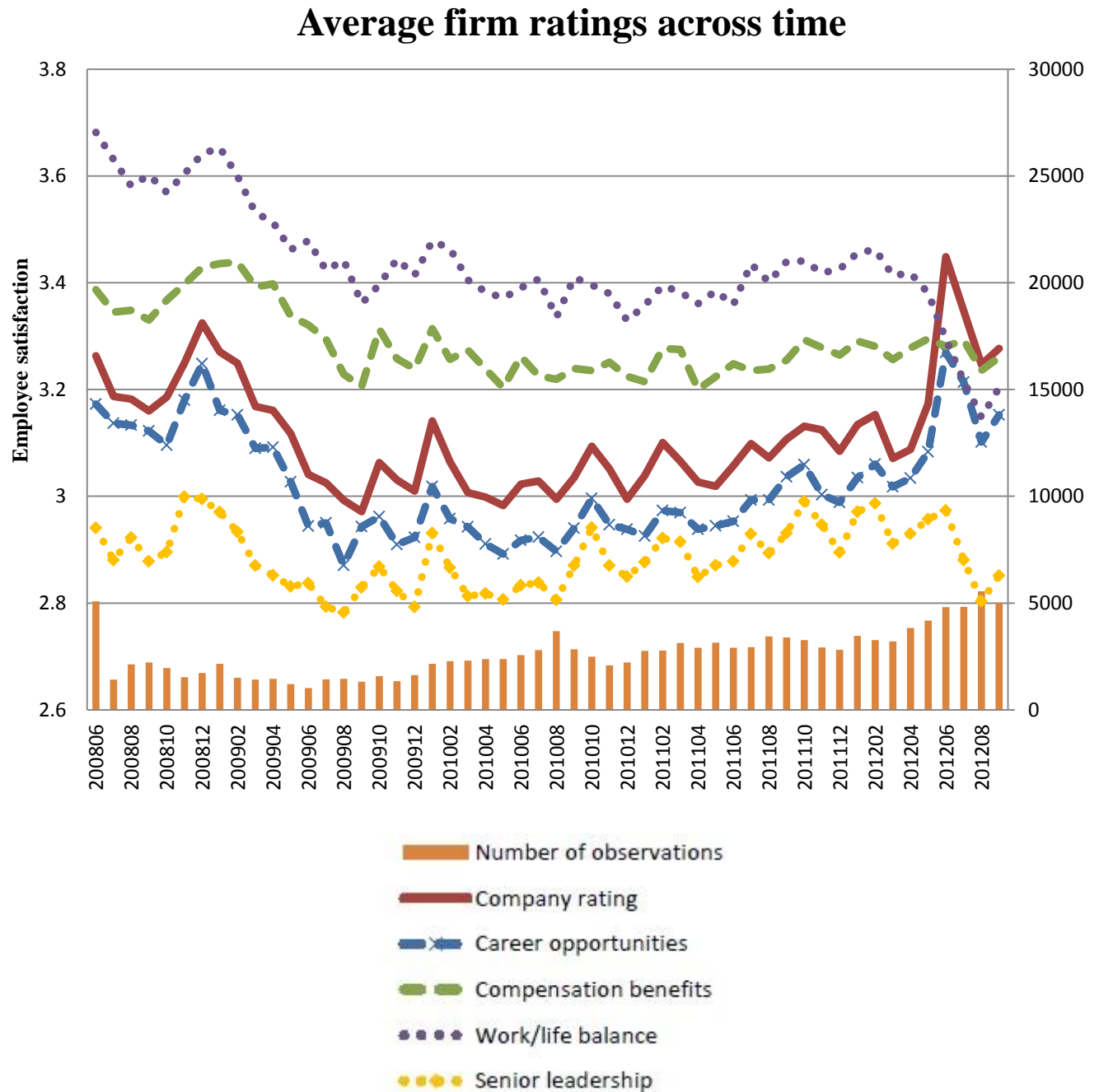
## Average CEO rating by industries



**Figure 2 - Average employee satisfaction across time**

A. Average firm ratings across time

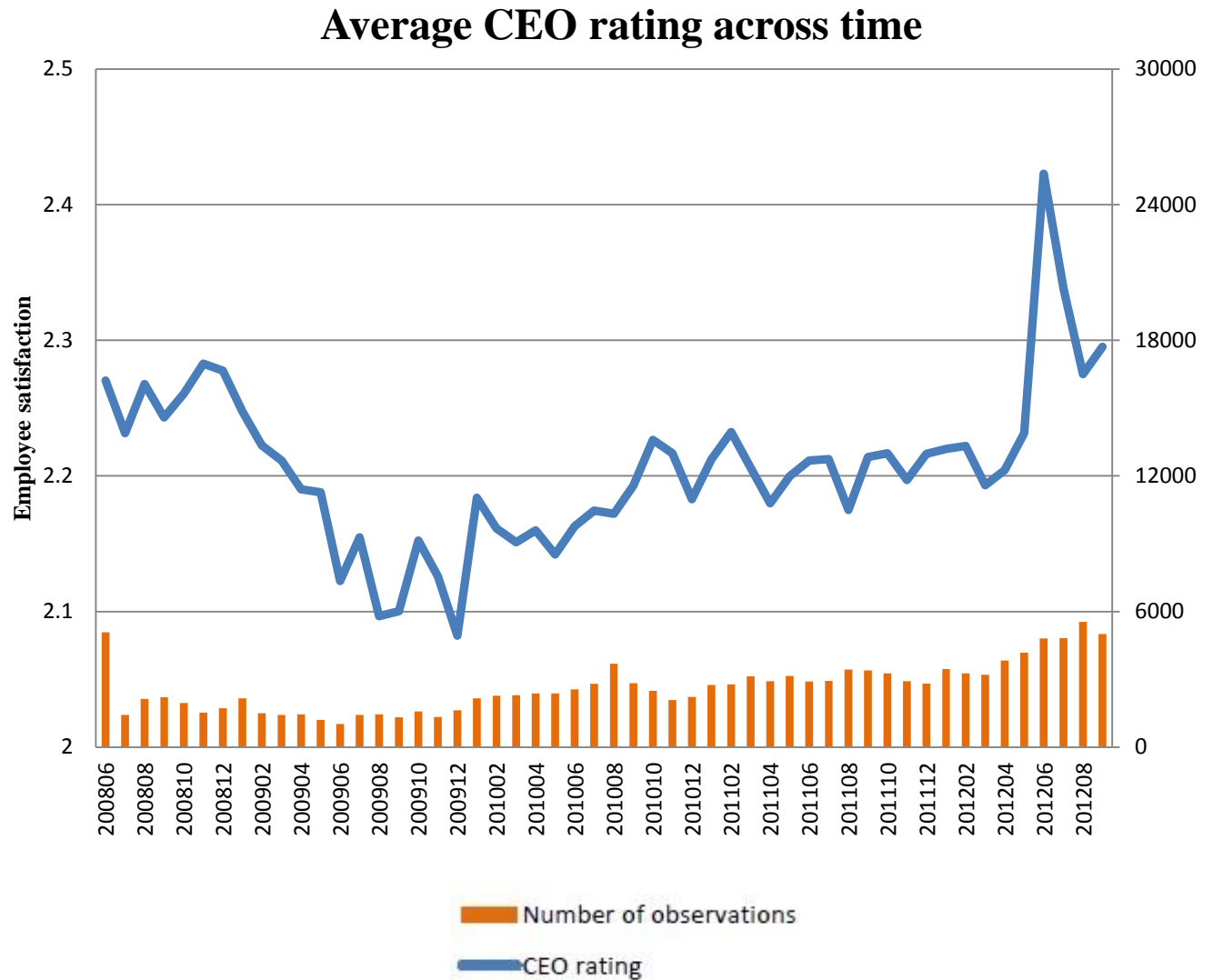
In Figure 2A, for each month, we take the average of employee satisfaction scores on company rating, career opportunities, compensation and benefits, work/life balance, and senior leaders within that month and present the average ratings in each category across time. Left y-axis denotes various dimensions of firm ratings by employee reviews, and right y-axis denotes number of employee reviews.





## B. Average CEO rating across time

In Figure 2B, for each month, we take the average of employee satisfaction scores on CEO rating within that month and present the average CEO rating across time. Left y-axis denotes CEO approval ratings by employee reviews, and right y-axis denotes number of employee reviews.



**Table 1 – Summary statistics**

Table 1 represents the summary statistics of the final sample. We use the 2008-2012 sample of employee satisfaction data intersected with COMPUSTAT, EXECUCOMP, BoardEx, and CRSP. Variable definitions are described in Appendix A. Employee satisfaction data are on employee level, family firm statistics are on firm/year level, and firm characteristics are on firm/quarter level. Monetary terms are expressed in 2012 dollars. In Panel A2, A3, and A4, we compare the mean statistics, and \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

Panel A1. Employee satisfaction – Full sample

	N	Mean	Std. Dev.	25th %	Median	75th %
Company rating	102888	3.15	1.18	2	3	4
Career opportunities	102888	3.04	1.16	2	3	4
Compensation and benefits	102888	3.27	1.03	2.5	3	4
Work/life balance	102888	3.46	1.18	3	3.5	4.5
Senior leadership	102888	2.90	1.26	2	3	4
CEO rating	102888	2.24	0.79	2	2	3

Panel A2. Employee satisfaction – Subsample by job positions

	Non-Manager			Manager		
	N	Mean	Std. Dev.	N	Mean	Std. Dev.
Company rating	83238	3.15***	1.18	19650	3.12	1.19
Career opportunities	83238	3.02***	1.16	19650	3.13	1.16
Compensation and benefits	83238	3.25***	1.03	19650	3.34	1.00
Work/life balance	83238	3.47***	1.17	19650	3.39	1.21
Senior leadership	83238	2.91***	1.25	19650	2.87	1.27
CEO rating	83238	2.24***	0.78	19650	2.21	0.83

Panel A3. Employee satisfaction – Subsample by current and former employees

	Current employee			Former employee <sup>11</sup>		
	N	Mean	Std. Dev.	N	Mean	Std. Dev.
Company rating	87487	3.22***	1.16	15401	2.73	1.20
Career opportunities	87487	3.11***	1.16	15401	2.68	1.15
Compensation and benefits	87487	3.28***	1.02	15401	3.19	1.06
Work/life balance	87487	3.51***	1.15	15401	3.13	1.24
Senior leadership	87487	2.98***	1.24	15401	2.50	1.26
CEO rating	87487	2.28***	0.78	15401	2.01	0.80

Panel A4. Employee satisfaction – Subsample by ratings from the U.S and the international

	U.S.			International		
	N	Mean	Std. Dev.	N	Mean	Std. Dev.
Company rating	58800	3.14***	1.20	44088	3.16	1.16
Career opportunities	58800	3.03***	1.17	44088	3.06	1.15
Compensation and benefits	58800	3.30***	1.02	44088	3.23	1.03
Work/life balance	58800	3.48***	1.19	44088	3.43	1.15
Senior leadership	58800	2.89***	1.27	44088	2.92	1.24
CEO rating	58800	2.23***	0.80	44088	2.25	0.78

<sup>11</sup> Former employees refer to those who leave the firm at the same year when they give ratings.

Panel B. Family firm statistics

Total firm/year observations = 4232	% of total firm/year obs.	N
Founder firm	12.10	512
Scion firm	15.57	659
Other	72.33	3061

Panel C. Firm and CEO characteristics

Total firm/quarter obs. = 11587	Mean	Std. Dev.	25th %	Median	75th %
Assets (\$ millions)	24,030	80,184	1,347	4,065	15,385
Book leverage	0.22	0.18	0.06	0.19	0.32
Capex intensity	0.02	0.03	0.01	0.01	0.03
Cash ratio	0.16	0.15	0.05	0.11	0.23
CEO age	56	7	51	55	60
CEO tenure	8	5	5	7	10
CEO-Chair indicator	0.55	0.50	0	1	1
Debt ratings – investment grade	0.33	0.43	0	0	0.75
Debt ratings – speculative grade	0.11	0.21	0	0	0
Dividend yield	0.04	0.13	0	0.002	0.03
Firm age	27	21	12	19	38
Institutional ownership (%)	80.46	19.32	72.21	82.88	92.07
Managerial ownership (%)	2.83	6.36	0.21	0.60	1.85
Number of employees	17,017	37,833	1,250	4,300	14,051
R&D intensity indicator	0.36	0.48	0	0	1
R&D intensity	0.01	0.01	0	0	0.01

Revenue/employee (\$ thousands)	135	224	54	80	139
Reviews/employee (%)	0.19	0.29	0.03	0.09	0.22
S&P 500	0.42	0.49	0	0	1
Sales (\$ millions)	1,565	3,687	132	377	1,236
Sale growth	0.02	0.14	-0.04	0.01	0.07
Stock return	0.01	0.04	-0.02	0.01	0.03
Stock volatility	0.12	0.07	0.08	0.11	0.15
Tobin's q	1.80	1.05	1.12	1.46	2.09
ROA	0.01	0.04	0.004	0.01	0.02

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**Table 2 – Univariate comparison and correlation**

Table 2 compares employee satisfaction among founder firms, scion firms, and non-family firms and provides correlation matrix of various dimensions of employee satisfaction. We use the 2008-2012 sample of employee satisfaction data intersected with COMPUSTAT, EXECUCOMP, BoardEx, and CRSP. Variable definitions are described in Appendix A. Employee satisfaction data are on individual level. In Panel A, we compare the mean statistics. \*\*\*, \*\*, and \* denote that the mean of employee satisfaction in founder firms (scion firms) is significantly different from the mean of employee satisfaction in non-family firms at the 1%, 5%, and 10% levels, respectively. The superscript a, b, and c denote that the mean of employee satisfaction in founder firms is significantly different from the mean of employee satisfaction in scion firms at the 1%, 5%, and 10% levels, respectively. In Panel B, we provide the correlation coefficients among categories of employee satisfaction, and \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

Panel A. Univariate comparison of employee satisfaction across firms

	Founder firm			Scion firm			Non-family firm		
	N	Mean	Std. Dev.	N	Mean	Std. Dev.	N	Mean	Std. Dev.
Company rating	12912	3.27*** <sup>a</sup>	1.20	26379	3.16***	1.19	63597	3.12	1.17
Career opportunities	12912	3.11*** <sup>b</sup>	1.17	26379	3.08***	1.17	63597	3.01	1.16
Compensation and benefits	12912	3.41*** <sup>a</sup>	1.03	26379	3.26	1.05	63597	3.25	1.01
Work/life balance	12912	3.49*** <sup>b</sup>	1.19	26379	3.46*	1.17	63597	3.45	1.17
Senior leadership	12912	3.00*** <sup>a</sup>	1.29	26379	2.88*	1.26	63597	2.90	1.25
CEO rating	12912	2.35*** <sup>a</sup>	0.78	26379	2.21***	0.79	63597	2.23	0.79

Panel B. Correlation matrix

	Company rating	Career opportunities	Compensation and benefits	Work/life balance	Senior leadership
Career opportunities	0.745***				
Compensation and benefits	0.572***	0.511***			
Work/life balance	0.608***	0.449***	0.395***		
Senior leadership	0.755***	0.636***	0.446***	0.533***	
CEO rating	0.589***	0.483***	0.362***	0.370***	0.583***

**Table 3 – The effect of founding family presence on employee satisfaction**

We use the 2008-2012 sample of employee satisfaction data intersected with COMPUSTAT, EXECUCOMP, BoardEx, and CRSP. Variable definitions are described in Appendix A. Two-stage Heckman correction method is applied. In Panel A, we report the results of the firm/year sample from the first stage selection equation, industry and year fixed effects are included, and robust t-statistics adjusted for clustering by firm are presented in the parenthesis. In Panel B, we report the results of the employee/year sample from the second stage outcome equation, and robust t-statistics adjusted for heteroskedasticity are presented in the parenthesis. All independent variables of firm characteristics are lagged by one year. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

## Panel A. Family firm and employee satisfaction: selection equation

	Employee satisfaction indicator
Founder firm	0.0673 (1.637)
Scion firm	-0.0447 (-1.145)
S&P 500	0.0991*** (2.641)
Firm age	-0.00280*** (-3.277)
ln(CEO age)	-0.202** (-2.162)
ln(Sales)	0.0753*** (3.547)
ln(Number of employees)	0.110*** (6.147)
Book leverage	-0.0183 (-0.255)
R&D intensity	5.628*** (5.139)
Advertising intensity	-0.584 (-1.048)
Stock return	-0.525*** (-2.719)
Stock volatility	-0.159 (-0.938)
Market-to-book	0.0455*** (3.350)
ROA	0.0183 (0.101)
Industry avg. of ES indicator	1.351*** (5.035)
Observations	8,453
Pseudo R <sup>2</sup>	0.253



Panel B. Family firm and employee satisfaction: outcome equation

	(1) Company rating	(2) Career opportunities	(3) Compensation and benefits	(4) Work/life balance	(5) Senior leadership	(6) CEO rating
Founder firm	0.147*** (2.671)	0.275*** (4.723)	0.0862* (1.795)	0.132** (2.276)	0.202*** (3.311)	0.155*** (4.591)
Scion firm	-0.0380 (-0.715)	-0.0457 (-0.839)	0.00546 (0.121)	0.0316 (0.594)	0.00111 (0.0196)	0.0983*** (2.741)
S&P 500	0.0787* (1.892)	0.116*** (2.819)	0.124*** (3.503)	0.0935** (2.258)	0.0277 (0.630)	-0.0247 (-0.902)
Firm age	-0.00444* (-1.870)	-0.00352 (-1.379)	-0.00229 (-1.227)	-0.00359 (-1.557)	-0.00508* (-1.896)	-0.00180 (-1.022)
ln(CEO age)	-0.0254 (-0.338)	-0.0935 (-1.247)	-0.0412 (-0.639)	-0.0291 (-0.387)	0.00897 (0.110)	0.0533 (1.103)
Managerial ownership	-0.340* (-1.748)	-0.343* (-1.738)	-0.129 (-0.780)	-0.332* (-1.683)	-0.443** (-2.113)	-0.0696 (-0.562)
Institutional ownership	0.131*** (2.701)	0.0519 (1.079)	0.124*** (3.090)	0.0252 (0.521)	0.0766 (1.477)	0.0253 (0.779)
ln(Revenue/employee)	0.0603 (0.517)	0.0538 (0.533)	0.318*** (3.877)	-0.0589 (-0.733)	0.0712 (0.761)	-0.0121 (-0.165)
Reviews/employee	3.299 (1.026)	6.466** (2.023)	1.906 (0.702)	9.600*** (3.000)	-7.108** (-2.039)	-7.857*** (-3.646)
Manager	0.00740 (0.805)	0.138*** (14.99)	0.121*** (15.62)	-0.0708*** (-7.629)	0.00269 (0.271)	0.0192*** (3.085)
Current employee	0.438*** (43.10)	0.372*** (37.49)	0.0573*** (6.669)	0.331*** (31.69)	0.435*** (40.63)	0.228*** (34.29)
ln(Sales)	0.00129 (0.0121)	0.0539 (0.616)	-0.187** (-2.518)	0.0590 (0.877)	0.0105 (0.134)	0.0174 (0.260)
ln(Number of employees)	0.0737 (0.675)	0.161* (1.743)	0.268*** (3.523)	-0.0303 (-0.424)	-0.00729 (-0.0871)	-0.0246 (-0.359)
Book leverage	0.196** (2.190)	0.113 (1.279)	-0.106 (-1.431)	0.205** (2.289)	0.0983 (1.023)	0.143** (2.400)
R&D intensity	4.521*** (2.729)	2.780* (1.679)	2.875** (2.048)	3.299** (2.010)	3.271* (1.827)	2.347** (2.077)

Advertising intensity	-1.523* (-1.945)	-1.527** (-1.991)	-0.517 (-0.787)	-0.811 (-0.960)	-1.817** (-2.124)	-2.627*** (-4.604)
Stock return	0.277 (1.519)	-0.00806 (-0.0447)	-0.0407 (-0.265)	-0.491*** (-2.662)	0.644*** (3.309)	0.621*** (5.106)
Stock volatility	0.570*** (4.802)	0.502*** (4.263)	0.368*** (3.676)	0.438*** (3.635)	0.318** (2.495)	0.205*** (2.617)
Market-to-book	-0.00864 (-0.753)	0.00724 (0.632)	-0.0286*** (-3.011)	0.0159 (1.399)	0.00605 (0.488)	0.0284*** (3.742)
ROA	0.0375 (0.197)	0.0445 (0.239)	0.150 (0.965)	-0.100 (-0.543)	0.322 (1.583)	0.289** (2.260)
Firm fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Location fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Inverse Mills Ratio	0.529*** (4.455)	0.781*** (6.797)	0.219** (2.306)	0.590*** (5.206)	0.486*** (3.917)	0.103 (1.353)
Observations	102,888	102,888	102,888	102,888	102,888	102,888
Adjusted R <sup>2</sup>	0.119	0.093	0.143	0.092	0.100	0.145

**Table 4 – The effect of founding family presence on employee satisfaction: financial crisis**

We use the 2008-2012 sample of employee satisfaction data intersected with COMPUSTAT, EXECUCOMP, BoardEx, and CRSP. Variable definitions are described in Appendix A. Two-stage Heckman correction method is applied. In Table 4, we report the results of the employee/year sample from the second stage outcome equation, and robust t-statistics adjusted for heteroskedasticity are presented in the parenthesis. All independent variables of firm characteristics are lagged by one year. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

	(1) Company rating	(2) Career opportunities	(3) Compensation and benefits	(4) Work/life balance	(5) Senior leadership	(6) CEO rating
Founder firm	0.130** (2.322)	0.267*** (4.525)	0.0996** (2.049)	0.208*** (3.525)	0.225*** (3.644)	0.144*** (4.229)
Scion firm	-0.0509 (-0.941)	-0.0497 (-0.900)	0.00497 (0.109)	0.0283 (0.525)	0.000442 (0.00768)	0.121*** (3.363)
Founder firm × Crisis	-0.0116 (-0.463)	-0.00501 (-0.200)	-0.0311 (-1.476)	-0.0494** (-1.977)	-0.0406 (-1.495)	0.00792 (0.501)
Scion firm × Crisis	-0.0504*** (-2.876)	-0.0545*** (-3.122)	-0.0274* (-1.829)	-0.0204 (-1.153)	-0.0308 (-1.636)	-0.0891*** (-7.694)
Crisis	-0.122*** (-9.681)	-0.0897*** (-7.122)	-0.0449*** (-4.275)	-0.00379 (-0.302)	-0.103*** (-7.636)	-0.0524*** (-6.167)
S&P 500	0.117*** (2.847)	0.152*** (3.739)	0.147*** (4.219)	0.137*** (3.348)	0.0502 (1.157)	0.00717 (0.265)
Firm age	-0.00154 (-0.674)	-0.00219 (-0.909)	-0.00259 (-1.447)	-0.0115*** (-5.061)	-0.00614** (-2.430)	-0.000535 (-0.321)
ln(CEO age)	-0.159** (-2.128)	-0.215*** (-2.891)	-0.0890 (-1.394)	-0.0992 (-1.327)	-0.0446 (-0.550)	-0.0518 (-1.081)
Managerial ownership	-0.265 (-1.370)	-0.290 (-1.472)	-0.0846 (-0.512)	-0.324 (-1.643)	-0.408* (-1.946)	-0.0297 (-0.240)
Institutional ownership	0.195*** (4.221)	0.122*** (2.657)	0.136*** (3.564)	0.152*** (3.310)	0.117** (2.376)	0.0570* (1.839)
ln(Revenue/employee)	-0.0470 (-0.391)	-0.0228 (-0.223)	0.269*** (3.283)	-0.0443 (-0.523)	0.0338 (0.356)	-0.0683 (-0.905)
Reviews/employee	13.22*** (4.216)	14.25*** (4.566)	3.248 (1.228)	6.991** (2.242)	-5.227 (-1.540)	-2.654 (-1.263)

Manager	0.0128 (1.395)	0.142*** (15.50)	0.122*** (15.84)	-0.0688*** (-7.424)	0.00464 (0.468)	0.0224*** (3.603)
Current employee	0.444*** (43.64)	0.376*** (37.93)	0.0586*** (6.826)	0.331*** (31.67)	0.437*** (40.79)	0.231*** (34.70)
ln(Sales)	0.154 (1.409)	0.177** (2.010)	-0.134* (-1.811)	0.0872 (1.222)	0.0617 (0.778)	0.103 (1.493)
ln(Number of employees)	0.0675 (0.594)	0.162* (1.725)	0.244*** (3.195)	-0.0573 (-0.747)	-0.0266 (-0.310)	-0.0116 (-0.163)
Book leverage	0.256*** (2.858)	0.152* (1.713)	-0.0844 (-1.136)	0.208** (2.306)	0.116 (1.209)	0.143** (2.403)
R&D intensity	8.595*** (5.398)	6.163*** (3.867)	4.672*** (3.462)	4.930*** (3.134)	4.949*** (2.881)	4.976*** (4.584)
Advertising intensity	-2.120*** (-2.728)	-1.990*** (-2.608)	-0.750 (-1.147)	-0.825 (-0.979)	-1.998** (-2.349)	-2.983*** (-5.277)
Stock return	-0.496*** (-3.604)	-0.536*** (-3.936)	-0.457*** (-3.953)	-0.297** (-2.127)	0.400*** (2.727)	0.189** (2.062)
Stock volatility	0.129 (1.157)	0.102 (0.923)	0.287*** (3.085)	0.207* (1.833)	0.158 (1.323)	-0.0564 (-0.765)
Market-to-book	0.0387*** (3.736)	0.0498*** (4.810)	-0.0132 (-1.545)	0.0467*** (4.532)	0.0260** (2.318)	0.0588*** (8.685)
ROA	0.122 (0.639)	0.119 (0.641)	0.152 (0.979)	-0.0235 (-0.128)	0.353* (1.736)	0.299** (2.339)
Firm fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Location fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Inverse Mills Ratio	1.190*** (12.88)	1.345*** (14.94)	0.466*** (6.335)	0.927*** (10.35)	0.749*** (7.705)	0.496*** (8.312)
$\partial Satisfaction / \partial Founder (Crisis = 1)$	0.118**	0.262***	0.0685	0.159***	0.185***	0.152***
$\partial Satisfaction / \partial Scion (Crisis = 1)$	-0.101*	-0.104*	-0.0224	0.00799	-0.0304	0.0323
$\partial Satisfaction / \partial Crisis (Founder = 1)$	-0.133***	-0.0947***	-0.0760***	-0.0532**	-0.145***	-0.0445**
$\partial Satisfaction / \partial Crisis (Scion = 1)$	-0.172***	-0.144***	-0.0723***	-0.0242	-0.134***	-0.141***
Observations	102,888	102,888	102,888	102,888	102,888	102,888
Adjusted R <sup>2</sup>	0.116	0.092	0.143	0.091	0.100	0.144

**Table 5 – The effect of founding family presence on employee satisfaction: robustness**

We use the 2008-2012 sample of employee satisfaction data intersected with COMPUSTAT, EXECUCOMP, BoardEx, and CRSP. Variable definitions are described in Appendix A. Two-stage Heckman correction method is applied. We report the results from the second stage outcome equation, and robust t-statistics adjusted for heteroskedasticity are presented in the parenthesis. In Panel A, reviews by employees that recently leave the firm are excluded. In Panel B, employee reviews from the top 10 firms ranked by total reviews are excluded. In Panel C, the dependent variables are average ratings on firm/year level, where each firm is required to have at least 20 reviews per year. All independent variables of firm characteristics are lagged by one year. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Current employees

	(1) Company rating	(2) Career opportunities	(3) Compensation and benefits	(4) Work/life balance	(5) Senior leadership	(6) CEO rating
Founder firm	0.132** (2.262)	0.240*** (3.852)	0.0518 (1.016)	0.0819 (1.333)	0.169*** (2.602)	0.125*** (3.512)
Scion firm	-0.0544 (-0.944)	-0.0515 (-0.862)	0.0233 (0.475)	0.0359 (0.629)	0.000973 (0.0157)	0.0971** (2.493)
S&P 500	0.145*** (3.131)	0.134*** (2.911)	0.131*** (3.351)	0.134*** (2.978)	0.0909* (1.856)	-0.00274 (-0.0897)
Firm age	-0.00472* (-1.930)	-0.00389 (-1.478)	-0.00324* (-1.659)	-0.00411* (-1.694)	-0.00595** (-2.168)	-0.00158 (-0.859)
ln(CEO age)	0.0379 (0.464)	-0.0547 (-0.667)	-0.0689 (-0.980)	0.0358 (0.440)	0.0598 (0.671)	0.0496 (0.945)
Managerial ownership	-0.335 (-1.547)	-0.439** (-1.988)	-0.175 (-0.945)	-0.395* (-1.807)	-0.428* (-1.818)	-0.0166 (-0.119)
Institutional ownership	0.124** (2.349)	0.0419 (0.796)	0.151*** (3.489)	0.0395 (0.754)	0.0649 (1.145)	0.0280 (0.789)
ln(Revenue/employee)	0.161 (1.166)	0.204* (1.890)	0.394*** (4.543)	-0.0806 (-0.708)	0.147 (1.384)	0.0332 (0.326)
Reviews/employee	2.176 (0.624)	6.316* (1.814)	3.522 (1.200)	8.782** (2.555)	-7.113* (-1.884)	-7.417*** (-3.181)
Manager	0.0220**	0.138***	0.114***	-0.0603***	0.0262**	0.0281***

	(2.205)	(13.81)	(13.63)	(-6.014)	(2.408)	(4.168)
ln(Sales)	-0.0751	-0.0748	-0.258***	0.0688	-0.0592	-0.0321
	(-0.589)	(-0.804)	(-3.327)	(0.678)	(-0.655)	(-0.336)
ln(Number of employees)	0.124	0.265***	0.328***	-0.0677	0.0343	0.0144
	(0.953)	(2.697)	(4.097)	(-0.642)	(0.359)	(0.148)
Book leverage	0.203**	0.171*	-0.0923	0.211**	0.0825	0.174***
	(2.103)	(1.774)	(-1.148)	(2.184)	(0.789)	(2.702)
R&D intensity	3.286*	0.707	1.551	1.282	1.896	1.957
	(1.852)	(0.396)	(1.024)	(0.726)	(0.982)	(1.619)
Advertising intensity	-1.867**	-1.727**	-0.754	-0.530	-2.511***	-3.548***
	(-2.179)	(-2.027)	(-1.043)	(-0.569)	(-2.679)	(-5.798)
Stock return	0.237	-0.0523	-0.0532	-0.490**	0.593***	0.620***
	(1.188)	(-0.264)	(-0.316)	(-2.445)	(2.778)	(4.664)
Stock volatility	0.569***	0.555***	0.419***	0.428***	0.307**	0.197**
	(4.413)	(4.306)	(3.836)	(3.288)	(2.211)	(2.314)
Market-to-book	-0.00305	0.0159	-0.0278***	0.0223*	0.0114	0.0281***
	(-0.248)	(1.287)	(-2.715)	(1.830)	(0.849)	(3.452)
ROA	0.147	0.155	0.322*	0.0271	0.299	0.338**
	(0.708)	(0.761)	(1.882)	(0.134)	(1.338)	(2.402)
Firm fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Location fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Inverse Mills Ratio	0.519***	0.741***	0.140	0.525***	0.447***	0.0776
	(4.049)	(5.919)	(1.356)	(4.310)	(3.329)	(0.931)
Observations	87,487	87,487	87,487	87,487	87,487	87,487
Adjusted R <sup>2</sup>	0.102	0.081	0.141	0.078	0.084	0.135

Panel B: Excluding top 10 firms

	(1) Company rating	(2) Career opportunities	(3) Compensation and benefits	(4) Work/life balance	(5) Senior leadership	(6) CEO rating
Founder firm	0.186*** (3.345)	0.298*** (5.084)	0.121** (2.500)	0.155*** (2.644)	0.230*** (3.747)	0.171*** (5.030)
Scion firm	-0.0252 (-0.471)	-0.0306 (-0.559)	0.0131 (0.291)	0.0363 (0.679)	0.0115 (0.202)	0.110*** (3.048)
S&P 500	0.0684 (1.633)	0.0990** (2.386)	0.132*** (3.705)	0.0945** (2.266)	0.0176 (0.397)	-0.0373 (-1.357)
Firm age	-0.00421* (-1.764)	-0.00324 (-1.265)	-0.00206 (-1.099)	-0.00398* (-1.718)	-0.00494* (-1.837)	-0.00125 (-0.706)
ln(CEO age)	-0.119 (-1.472)	-0.222*** (-2.753)	-0.112 (-1.617)	-0.0498 (-0.615)	-0.0202 (-0.229)	0.00575 (0.112)
Managerial ownership	-0.479** (-2.425)	-0.474** (-2.356)	-0.255 (-1.516)	-0.417** (-2.078)	-0.542** (-2.544)	-0.228* (-1.820)
Institutional ownership	0.110** (2.114)	0.00493 (0.0960)	0.0950** (2.235)	0.0482 (0.932)	0.0529 (0.957)	-0.0124 (-0.354)
ln(Revenue/employee)	0.186 (1.603)	0.184* (1.765)	0.345*** (4.109)	-0.0373 (-0.452)	0.169* (1.765)	0.0755 (1.048)
Reviews/employee	4.989 (1.429)	5.159 (1.490)	7.727*** (2.619)	14.14*** (4.078)	-6.698* (-1.778)	-6.020*** (-2.626)
Manager	0.00106 (0.0999)	0.145*** (13.67)	0.119*** (13.43)	-0.0853*** (-7.955)	-0.00564 (-0.491)	0.0156** (2.210)
Current employee	0.455*** (39.58)	0.380*** (34.09)	0.0657*** (6.800)	0.328*** (27.84)	0.444*** (36.79)	0.233*** (31.29)
ln(Sales)	-0.0223 (-0.214)	0.0113 (0.126)	-0.157** (-2.083)	0.0800 (1.172)	-0.00763 (-0.0966)	-0.0103 (-0.158)
ln(Number of employees)	0.188* (1.751)	0.276*** (2.942)	0.299*** (3.879)	0.0128 (0.178)	0.0786 (0.936)	0.0503 (0.757)
Book leverage	0.0199 (0.207)	-0.0305 (-0.323)	-0.180** (-2.247)	0.164* (1.702)	0.0531 (0.514)	-0.0286 (-0.447)
R&D intensity	4.449** (2.544)	3.352* (1.915)	1.733 (1.165)	2.358 (1.358)	3.571* (1.889)	1.645 (1.393)

Advertising intensity	-1.167 (-1.444)	-1.484* (-1.880)	-0.234 (-0.347)	-0.744 (-0.851)	-1.351 (-1.533)	-1.809*** (-3.095)
Stock return	0.581*** (2.907)	0.304 (1.549)	0.223 (1.330)	-0.298 (-1.478)	0.689*** (3.242)	0.815*** (6.205)
Stock volatility	0.324** (2.317)	0.293** (2.118)	0.133 (1.122)	0.333** (2.356)	0.287* (1.920)	0.107 (1.176)
Market-to-book	-0.0110 (-0.811)	0.00673 (0.497)	-0.0308*** (-2.748)	0.00756 (0.560)	0.0134 (0.915)	0.0260*** (3.052)
ROA	0.0146 (0.0754)	0.0369 (0.195)	0.0923 (0.584)	-0.0979 (-0.522)	0.314 (1.523)	0.319** (2.465)
Firm fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Location fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Inverse Mills Ratio	0.635*** (4.890)	0.822*** (6.523)	0.395*** (3.814)	0.689*** (5.550)	0.576*** (4.246)	0.0761 (0.936)
Observations	79,084	79,084	79,084	79,084	79,084	79,084
Adjusted R <sup>2</sup>	0.131	0.102	0.151	0.105	0.114	0.166



Panel C: Firm/year average

	(1) Company rating	(2) Career opportunities	(3) Compensation and benefits	(4) Work/life balance	(5) Senior leadership	(6) CEO rating
Founder firm	0.168*** (2.745)	0.238** (2.122)	0.0940 (1.397)	0.0680 (0.589)	0.222*** (3.251)	0.168 (1.553)
Scion firm	-0.0322 (-0.330)	-0.0780 (-1.013)	0.0204 (0.208)	-0.0254 (-0.237)	0.0822 (0.828)	0.224 (1.514)
S&P 500	0.0616 (0.680)	0.0895 (1.080)	0.168** (2.390)	0.101 (1.091)	-0.00685 (-0.0608)	-0.0652 (-0.726)
Firm age	-0.00451*** (-2.805)	-0.00397** (-2.513)	-0.00214* (-1.837)	-0.00427*** (-2.745)	-0.00527*** (-2.877)	-0.00124 (-0.934)
ln(CEO age)	-0.198 (-0.982)	-0.336 (-1.601)	-0.226 (-1.351)	-0.0926 (-0.575)	-0.172 (-0.800)	-0.0707 (-0.419)
Managerial ownership	-0.927* (-1.876)	-0.834** (-1.971)	-0.470* (-1.801)	-0.789* (-1.784)	-0.995** (-2.183)	-0.442** (-1.996)
Institutional ownership	0.0854 (0.721)	-0.0145 (-0.125)	0.0577 (0.633)	0.0410 (0.389)	0.0694 (0.538)	-0.00130 (-0.0137)
ln(Revenue/employee)	5.558 (1.249)	5.356 (1.125)	3.287 (0.812)	2.923 (0.713)	1.820 (0.386)	3.083 (0.831)
Reviews/employee	7.938 (0.728)	13.64 (1.421)	10.22 (1.357)	13.62 (1.449)	-1.147 (-0.0890)	-3.631 (-0.345)
ln(Sales)	-5.405 (-1.230)	-5.145 (-1.094)	-3.055 (-0.763)	-2.943 (-0.725)	-1.673 (-0.359)	-3.001 (-0.818)
ln(Number of employees)	5.487 (1.247)	5.395 (1.148)	3.139 (0.784)	2.986 (0.736)	1.671 (0.360)	2.939 (0.803)
Book leverage	0.0902 (0.354)	0.0745 (0.311)	-0.304 (-1.633)	0.269 (1.161)	0.0875 (0.294)	0.107 (0.618)
R&D intensity	-0.934 (-0.196)	-0.750 (-0.159)	-0.670 (-0.189)	-0.0966 (-0.0239)	-1.137 (-0.217)	-0.378 (-0.0853)
Advertising intensity	-0.410 (-0.180)	-0.818 (-0.380)	0.591 (0.341)	0.149 (0.0766)	0.0181 (0.00648)	-1.568 (-0.686)
Stock return	1.016** (2.205)	0.514 (1.108)	0.421 (1.168)	-0.0227 (-0.0538)	0.955** (2.043)	1.057*** (3.143)

Stock volatility	-0.149 (-0.385)	-0.0330 (-0.0905)	0.00591 (0.0203)	-0.113 (-0.371)	-0.176 (-0.465)	-0.228 (-0.870)
Market-to-book	0.0171 (0.564)	0.0391 (1.351)	-0.0211 (-0.853)	0.0422 (1.291)	0.0526 (1.546)	0.0519** (2.009)
ROA	-0.122 (-0.277)	-0.0287 (-0.0708)	0.246 (0.732)	-0.113 (-0.254)	0.184 (0.363)	0.00208 (0.00659)
Firm fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Inverse Mills Ratio	0.801* (1.815)	1.000** (2.533)	0.382 (1.088)	0.977*** (2.705)	0.930* (1.915)	0.356 (1.002)
Observations	1,066	1,066	1,066	1,066	1,066	1,066
Adjusted R <sup>2</sup>	0.749	0.692	0.818	0.743	0.718	0.748

**Table 6 – The effect of founding family presence on employee satisfaction: propensity score matching**

We use the 2008-2012 sample of employee satisfaction data intersected with COMPUSTAT, EXECUCOMP, BoardEx, and CRSP. Variable definitions are described in Appendix A. In Panel A, we report the Probit results of the firm/year sample.<sup>12</sup> Industry and year fixed effects are included, and robust t-statistics adjusted for clustering by firm are presented in the parenthesis. In Panel B, we compare firm characteristics in the matched firm/year sample. In Panel C and D, we report the results of the employee/year sample by propensity score matching on the founding family presence, and robust t-statistics adjusted for heteroskedasticity are presented in the parenthesis. All independent variables of firm characteristics are lagged by one year. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

Panel A. Founding family presence: Probit model

	(1) Founder firm	(2) Scion firm
S&P 500	0.0267 (0.810)	0.168*** (4.202)
ln(Firm age)	-0.0465*** (-2.913)	0.0422** (2.149)
ln(CEO age)	0.147* (1.702)	-0.0644 (-0.621)
Managerial ownership	1.545*** (8.684)	1.325*** (6.840)
Institutional ownership	0.0467 (0.842)	-0.136** (-2.284)
ln(Sales)	-0.0548*** (-2.707)	0.0756*** (3.929)
Book leverage	-0.173** (-2.349)	0.0140 (0.165)
R&D intensity	-0.589 (-0.589)	1.768 (1.380)
Stock return	0.0944 (0.498)	0.00909 (0.0499)
Stock volatility	0.331** (2.028)	-0.320* (-1.866)
Market-to-book	0.00852 (0.655)	-0.0116 (-0.757)
ROA	-0.261 (-1.530)	0.173 (0.885)
Inverse Mills Ratio	-0.336*** (-3.861)	0.352*** (4.085)
Observations	2,873	3,417
Pseudo R <sup>2</sup>	0.294	0.187
Area under ROC curve	0.852	0.801

<sup>12</sup> The sample in Column (1) excludes scion firms. The sample in Column (2) excludes founder firms.

Panel B. Univariate comparison of firm characteristics: matched sample

	(1)		(2)	
	Founder firm Mean	Nonfamily firm Mean	Scion firm Mean	Nonfamily firm Mean
S&P 500	0.35*	0.29	0.57**	0.63
ln(Firm age)	2.67	2.64	3.38	3.39
ln(CEO age)	4.00	3.99	4.02	4.02
Managerial ownership	0.05	0.05	0.03	0.03
Institutional ownership	0.85	0.86	0.80	0.81
ln(Sales)	20.01	19.89	21.02***	21.26
Book leverage	0.18	0.18	0.21	0.21
R&D intensity	0.01	0.01	0.01	0.01
Stock return	0.01	0.01	0.01	0.01
Stock volatility	0.12	0.12	0.11	0.11
Market-to-book	2.08	2.15	1.67	1.69
ROA	0.01	0.01	0.01	0.01
Inverse Mills Ratio	0.48	0.51	0.52**	0.47
Observations	373	373	553	553

Panel C. Founder firm and employee satisfaction: matched sample

	(1) Company rating	(2) Career opportunities	(3) Compensation and benefits	(4) Work/life balance	(5) Senior leadership	(6) CEO rating
Founder firm	0.263*** (2.875)	0.460*** (4.791)	0.292*** (3.597)	0.386*** (3.930)	0.257** (2.508)	0.160*** (3.021)
S&P 500	-0.188 (-1.242)	-0.0122 (-0.0850)	-0.0770 (-0.604)	-0.186 (-1.195)	-0.0981 (-0.613)	-0.0913 (-0.941)
Firm age	0.0322 (0.985)	0.0466 (1.267)	0.0110 (0.331)	-0.0106 (-0.269)	0.0264 (0.676)	0.00166 (0.0721)
ln(CEO age)	-0.153 (-0.751)	-0.460** (-2.220)	-0.0854 (-0.504)	0.168 (0.836)	0.0803 (0.363)	0.257** (2.105)
Managerial ownership	-0.795* (-1.782)	-0.786* (-1.754)	-0.224 (-0.609)	0.211 (0.462)	-0.392 (-0.814)	-0.381 (-1.496)
Institutional ownership	0.398*** (3.363)	0.253** (2.158)	0.411*** (4.340)	0.0824 (0.697)	0.0767 (0.601)	0.00918 (0.116)
ln(Revenue/employee)	0.341 (1.403)	0.226 (0.918)	0.954*** (4.470)	0.373 (1.634)	0.244 (0.942)	0.00647 (0.0426)
Reviews/employee	-6.821 (-0.742)	-8.353 (-0.936)	-8.776 (-1.226)	-11.49 (-1.326)	-7.112 (-0.733)	1.587 (0.280)
Manager	0.00745 (0.327)	0.125*** (5.424)	0.126*** (6.730)	-0.0775*** (-3.420)	-0.00352 (-0.143)	0.0141 (0.939)
Current employee	0.483*** (19.26)	0.431*** (17.52)	0.0810*** (3.850)	0.358*** (14.06)	0.444*** (16.76)	0.234*** (14.55)
ln(Sales)	-0.127 (-0.728)	-0.0292 (-0.166)	-0.555*** (-3.567)	-0.165 (-1.087)	-0.0164 (-0.0902)	0.0107 (0.0973)
ln(Number of employees)	0.0632 (0.319)	0.175 (0.870)	0.678*** (3.880)	0.281 (1.577)	-0.0914 (-0.437)	-0.137 (-1.138)
Book leverage	0.411 (1.551)	0.352 (1.347)	0.107 (0.499)	0.298 (1.153)	0.511* (1.820)	0.0812 (0.487)
R&D intensity	2.089 (0.376)	4.184 (0.808)	0.375 (0.0826)	-5.119 (-0.974)	-1.725 (-0.294)	-0.0268 (-0.00756)
Advertising intensity	-0.230 (-0.0850)	-0.538 (-0.196)	0.453 (0.202)	-4.179 (-1.526)	3.325 (1.101)	-1.130 (-0.632)

Stock return	1.119** (2.097)	0.695 (1.320)	0.866** (2.005)	0.273 (0.507)	0.673 (1.174)	0.924*** (2.645)
Stock volatility	0.543 (1.267)	0.408 (0.956)	0.331 (0.935)	0.860** (2.016)	0.614 (1.340)	0.479* (1.814)
Market-to-book	-0.0410 (-1.473)	-0.0285 (-1.047)	-0.0655*** (-2.899)	-0.0220 (-0.788)	0.00247 (0.0808)	-0.0232 (-1.341)
ROA	-0.368 (-0.547)	0.492 (0.747)	-0.00443 (-0.00834)	-0.756 (-1.144)	0.565 (0.773)	0.830* (1.849)
Firm fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Location fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Inverse Mills Ratio	0.550 (1.494)	0.758** (2.076)	0.0161 (0.0528)	0.446 (1.232)	0.469 (1.173)	-0.155 (-0.640)
Observations	16,686	16,686	16,686	16,686	16,686	16,686
Adjusted R <sup>2</sup>	0.157	0.102	0.182	0.124	0.133	0.200

Panel D. Scion firm and employee satisfaction: matched sample

	(1) Company rating	(2) Career opportunities	(3) Compensation and benefits	(4) Work/life balance	(5) Senior leadership	(6) CEO rating
Scion firm	0.176 (1.557)	0.0919 (0.803)	0.158 (1.609)	-0.123 (-1.088)	0.213* (1.836)	0.371*** (5.006)
S&P 500	0.244*** (2.883)	0.263*** (3.140)	0.226*** (3.142)	0.186** (2.199)	0.142 (1.612)	0.00345 (0.0629)
Firm age	-0.00754*** (-2.853)	-0.00640** (-2.283)	-0.00380* (-1.792)	-0.00521** (-2.029)	-0.00722** (-2.450)	-0.00268 (-1.394)
ln(CEO age)	-0.00452 (-0.0329)	-0.0490 (-0.365)	-0.0339 (-0.289)	-0.0921 (-0.675)	-0.118 (-0.785)	0.108 (1.240)
Managerial ownership	1.037** (2.047)	1.053** (2.014)	0.770 (1.639)	0.151 (0.276)	0.460 (0.791)	0.587* (1.793)
Institutional ownership	0.211** (2.307)	0.147 (1.612)	0.209*** (2.635)	0.0585 (0.634)	0.112 (1.132)	0.107* (1.752)
ln(Revenue/employee)	-0.314 (-0.106)	-2.077 (-0.669)	1.359 (0.552)	-0.0558 (-0.0204)	2.135 (0.733)	2.587 (1.521)
Reviews/employee	14.22* (1.796)	26.20*** (3.267)	7.884 (1.201)	15.49* (1.938)	-8.145 (-0.945)	-9.944* (-1.746)
Manager	0.0133 (0.958)	0.161*** (11.56)	0.154*** (13.11)	-0.0910*** (-6.485)	0.000964 (0.0639)	0.0399*** (4.256)
Current employee	0.432*** (28.08)	0.364*** (23.93)	0.0475*** (3.581)	0.329*** (20.84)	0.443*** (27.06)	0.228*** (22.66)
ln(Sales)	0.170 (0.0580)	2.012 (0.657)	-1.330 (-0.548)	-0.0706 (-0.0262)	-2.155 (-0.750)	-2.610 (-1.556)
ln(Number of employees)	-0.188 (-0.0642)	-1.901 (-0.622)	1.169 (0.482)	0.0293 (0.0109)	2.146 (0.748)	2.577 (1.540)
Book leverage	0.476*** (3.104)	0.320** (2.113)	-0.114 (-0.875)	0.214 (1.390)	0.445*** (2.662)	0.603*** (5.673)
R&D intensity	8.607*** (3.142)	6.713** (2.432)	0.196 (0.0846)	5.087* (1.864)	11.71*** (3.921)	9.278*** (4.947)
Advertising intensity	-4.790*** (-3.535)	-4.511*** (-3.423)	-2.844** (-2.523)	-0.453 (-0.325)	-6.381*** (-4.455)	-6.947*** (-7.567)

Stock return	0.0671 (0.201)	-0.174 (-0.533)	-0.0565 (-0.200)	-0.0929 (-0.278)	0.444 (1.244)	0.127 (0.578)
Stock volatility	1.325*** (6.241)	1.173*** (5.546)	1.076*** (5.848)	0.799*** (3.705)	0.806*** (3.501)	0.879*** (6.141)
Market-to-book	0.0564** (2.138)	0.0946*** (3.583)	-0.0216 (-0.973)	0.0609** (2.328)	0.0988*** (3.468)	0.128*** (7.078)
ROA	-0.694** (-2.134)	-0.599* (-1.895)	-0.208 (-0.775)	-0.887*** (-2.808)	-0.637* (-1.820)	-0.358* (-1.647)
Firm fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Location fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Inverse Mills Ratio	0.753*** (3.187)	1.063*** (4.736)	0.0557 (0.289)	0.751*** (3.246)	0.922*** (3.676)	0.569*** (3.787)
Observations	45,903	45,903	45,903	45,903	45,903	45,903
Adjusted R <sup>2</sup>	0.102	0.078	0.132	0.089	0.080	0.124

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**Table 7 – The effect of employee satisfaction on Tobin’s Q**

We use the 2008-2012 sample of employee satisfaction data intersected with COMPUSTAT, EXECUCOMP, BoardEx, and CRSP. Variable definitions are described in Appendix A. We report the results of the firm/quarter sample from the fixed effect model specified in Equation (2), and robust t-statistics adjusted for clustering by firm are presented in the parenthesis. All independent variables are lagged by one quarter. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

	(1) Tobin’s Q	(2) Tobin’s Q	(3) Tobin’s Q	(4) Tobin’s Q	(5) Tobin’s Q	(6) Tobin’s Q
Company rating	0.0749*** (4.728)					
Career opportunities		0.0694*** (4.770)				
Compensation and benefits			0.0583*** (2.732)			
Work/life balance				0.0291* (1.846)		
Senior leadership					0.101*** (6.804)	
CEO rating						0.175*** (7.566)
ln(Assets)	-0.268*** (-7.185)	-0.267*** (-7.129)	-0.268*** (-7.110)	-0.264*** (-7.007)	-0.272*** (-7.308)	-0.273*** (-7.363)
Firm age	0.000261 (0.204)	0.000231 (0.181)	0.000368 (0.286)	0.000240 (0.186)	0.000243 (0.191)	0.000205 (0.162)
Sale growth	0.525*** (8.793)	0.523*** (8.730)	0.527*** (8.818)	0.530*** (8.835)	0.520*** (8.704)	0.511*** (8.746)
Book leverage	0.186 (1.041)	0.184 (1.025)	0.175 (0.975)	0.167 (0.926)	0.195 (1.104)	0.211 (1.188)
Debt ratings – investment grade	0.123 (1.239)	0.125 (1.260)	0.123 (1.234)	0.123 (1.233)	0.123 (1.247)	0.124 (1.257)
Debt ratings – speculative grade	-0.468*** (-3.806)	-0.468*** (-3.795)	-0.475*** (-3.850)	-0.475*** (-3.845)	-0.460*** (-3.775)	-0.454*** (-3.709)
Capex intensity	5.562*** (4.631)	5.519*** (4.573)	5.614*** (4.633)	5.666*** (4.677)	5.444*** (4.548)	5.339*** (4.461)

R&D intensity indicator	0.0683 (0.856)	0.0694 (0.868)	0.0641 (0.803)	0.0685 (0.851)	0.0697 (0.879)	0.0714 (0.905)
Cash ratio	2.139*** (8.789)	2.150*** (8.813)	2.146*** (8.802)	2.159*** (8.844)	2.139*** (8.860)	2.130*** (8.884)
Dividend yield	0.214 (1.275)	0.213 (1.267)	0.205 (1.207)	0.212 (1.247)	0.228 (1.365)	0.257 (1.543)
Institutional ownership	0.0834 (0.683)	0.0858 (0.703)	0.0748 (0.609)	0.0836 (0.682)	0.0787 (0.647)	0.0808 (0.670)
CEO age	-0.0156*** (-3.766)	-0.0154*** (-3.719)	-0.0156*** (-3.760)	-0.0157*** (-3.758)	-0.0156*** (-3.783)	-0.0152*** (-3.705)
CEO tenure	0.0109* (1.916)	0.0107* (1.896)	0.0113** (1.979)	0.0110* (1.933)	0.0106* (1.875)	0.0101* (1.802)
CEO-Chair indicator	0.0260 (0.527)	0.0248 (0.501)	0.0256 (0.515)	0.0250 (0.503)	0.0258 (0.526)	0.0288 (0.589)
Industry Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Quarter Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Inverse Mills Ratio	-1.148*** (-8.586)	-1.142*** (-8.552)	-1.149*** (-8.574)	-1.147*** (-8.545)	-1.156*** (-8.654)	-1.150*** (-8.616)
Observations	11,587	11,587	11,587	11,587	11,587	11,587
Adjusted R <sup>2</sup>	0.391	0.391	0.390	0.389	0.395	0.397

**Table 8 – The effect of employee satisfaction on ROA**

We use the 2008-2012 sample of employee satisfaction data intersected with COMPUSTAT, EXECUCOMP, BoardEx, and CRSP. Variable definitions are described in Appendix A. We report the results of the firm/quarter sample from the fixed effect model specified in Equation (2), and robust t-statistics adjusted for clustering by firm are presented in the parenthesis. All independent variables are lagged by one quarter. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

	(1) ROA	(2) ROA	(3) ROA	(4) ROA	(5) ROA	(6) ROA
Company rating	0.00160*** (3.006)					
Career opportunities		0.000960* (1.741)				
Compensation and benefits			-5.23e-05 (-0.0866)			
Work/life balance				0.000491 (0.919)		
Senior leadership					0.00225*** (4.576)	
CEO rating						0.00436*** (5.427)
ln(Assets)	-0.00338*** (-3.775)	-0.00332*** (-3.697)	-0.00325*** (-3.613)	-0.00328*** (-3.650)	-0.00347*** (-3.894)	-0.00353*** (-3.986)
Firm age	4.73e-05 (1.502)	4.69e-05 (1.488)	4.73e-05 (1.497)	4.70e-05 (1.485)	4.69e-05 (1.496)	4.59e-05 (1.477)
Sale growth	0.0256*** (7.866)	0.0256*** (7.864)	0.0257*** (7.872)	0.0257*** (7.876)	0.0255*** (7.841)	0.0252*** (7.799)
Book leverage	9.05e-05 (0.0212)	-8.99e-05 (-0.0209)	-0.000344 (-0.0798)	-0.000326 (-0.0758)	0.000313 (0.0737)	0.000786 (0.185)
Debt ratings – investment grade	0.00820*** (3.424)	0.00825*** (3.431)	0.00825*** (3.425)	0.00821*** (3.414)	0.00820*** (3.444)	0.00821*** (3.468)
Debt ratings – speculative grade	-0.00831** (-2.507)	-0.00837** (-2.521)	-0.00851** (-2.562)	-0.00847** (-2.548)	-0.00812** (-2.467)	-0.00791** (-2.410)
Capex intensity	0.0783*** (3.078)	0.0785*** (3.075)	0.0807*** (3.155)	0.0805*** (3.151)	0.0756*** (2.985)	0.0723*** (2.887)

R&D intensity indicator	-0.00446*** (-2.722)	-0.00442*** (-2.699)	-0.00439*** (-2.684)	-0.00445*** (-2.701)	-0.00443*** (-2.719)	-0.00439*** (-2.716)
Cash ratio	0.0315*** (5.749)	0.0319*** (5.796)	0.0321*** (5.871)	0.0320*** (5.818)	0.0315*** (5.780)	0.0312*** (5.735)
Dividend yield	0.00831* (1.686)	0.00826* (1.674)	0.00825* (1.660)	0.00826* (1.666)	0.00862* (1.754)	0.00938* (1.915)
Institutional ownership	0.00458 (1.300)	0.00461 (1.306)	0.00458 (1.293)	0.00458 (1.297)	0.00448 (1.275)	0.00452 (1.300)
CEO age	-0.000133 (-1.576)	-0.000129 (-1.537)	-0.000131 (-1.555)	-0.000133 (-1.576)	-0.000133 (-1.582)	-0.000123 (-1.477)
CEO tenure	0.000216* (1.707)	0.000215* (1.700)	0.000218* (1.729)	0.000219* (1.730)	0.000209* (1.660)	0.000197 (1.572)
CEO-Chair indicator	-6.73e-05 (-0.0589)	-0.000101 (-0.0881)	-0.000115 (-0.100)	-9.46e-05 (-0.0825)	-7.00e-05 (-0.0615)	7.78e-06 (0.00687)
Industry Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Quarter Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Inverse Mills Ratio	-0.0187*** (-5.997)	-0.0186*** (-5.938)	-0.0186*** (-5.910)	-0.0187*** (-5.948)	-0.0189*** (-6.098)	-0.0188*** (-6.096)
Observations	11,587	11,587	11,587	11,587	11,587	11,587
Adjusted R <sup>2</sup>	0.087	0.086	0.086	0.086	0.088	0.090

**Table 9 – The effect of orthogonal employee satisfaction on firm performance:**

We use the 2008-2012 sample of employee satisfaction data intersected with COMPUSTAT, EXECUCOMP, BoardEx, and CRSP. Variable definitions are described in Appendix A. We report the results of the firm/quarter sample from the fixed effect model specified in Equation (2), and robust t-statistics adjusted for clustering by firm are presented in the parenthesis. All independent variables are lagged by one quarter. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Employee satisfaction orthogonalization

	(1) Career opportunities	(2) Compensation and benefits	(3) Work/life balance	(4) Senior leadership	(5) CEO rating
Company rating	0.713*** (92.51)	0.465*** (42.48)	0.622*** (61.45)	0.835*** (121.8)	0.441*** (72.25)
$\varepsilon$ _Career opportunities		0.129*** (7.979)	-0.0477*** (-2.828)	0.140*** (10.18)	0.0590*** (5.349)
$\varepsilon$ _Compensation and benefits			0.111*** (7.082)	-0.0344*** (-2.667)	0.00459 (0.471)
$\varepsilon$ _Work/life balance				0.0941*** (8.399)	0.00315 (0.349)
$\varepsilon$ _Senior leadership					0.262*** (24.73)
CEO rating					
Observations	11,587	11,587	11,587	11,587	11,587
Adjusted R <sup>2</sup>	0.584	0.313	0.406	0.633	0.461

Panel B: Employee satisfaction and firm performance

	(1) Tobin's Q	(2) Tobin's Q	(3) ROA	(4) ROA
Company rating	0.0775*** (4.887)	0.0749*** (4.940)	0.00160*** (3.015)	0.000704 (1.390)
$\varepsilon$ _Career opportunities	0.0235 (1.117)	0.0228 (1.131)	-0.000681 (-0.988)	-0.00101 (-1.525)
$\varepsilon$ _Compensation and benefits	0.0101 (0.413)	0.0172 (0.730)	-0.00150** (-2.053)	-0.00155** (-2.230)
$\varepsilon$ _Work/life balance	-0.0349* (-1.819)	-0.0301 (-1.644)	-0.000874 (-1.365)	-0.000376 (-0.610)
$\varepsilon$ _Senior leadership	0.127*** (6.537)	0.112*** (6.175)	0.00306*** (4.298)	0.00146** (2.167)
$\varepsilon$ _CEO rating	0.144*** (5.600)	0.116*** (4.540)	0.00413*** (3.830)	0.00232** (2.288)
ln(Assets)	-0.276*** (-7.450)	-0.271*** (-7.810)	-0.00349*** (-3.953)	-0.000274 (-0.367)
Firm age	0.000270 (0.214)	0.000166 (0.143)	4.50e-05 (1.449)	4.21e-05* (1.673)
Sale growth	0.505*** (8.637)	0.300*** (4.494)	0.0251*** (7.787)	0.0204*** (6.569)
Book leverage	0.220 (1.246)	0.343** (2.121)	0.000866 (0.206)	-0.00151 (-0.456)
Debt ratings – investment grade	0.126 (1.290)	0.0846 (0.917)	0.00834*** (3.547)	0.00685*** (3.451)
Debt ratings – speculative grade	-0.450*** (-3.706)	-0.409*** (-3.570)	-0.00788** (-2.420)	-0.00277 (-0.952)
Capex intensity	5.255*** (4.380)	4.962*** (4.279)	0.0719*** (2.877)	0.0116 (0.465)
R&D intensity indicator	0.0734 (0.936)	0.100 (1.355)	-0.00415*** (-2.590)	-0.00505*** (-3.694)

Cash ratio	2.132*** (8.923)	1.971*** (8.377)	0.0315*** (5.844)	0.00708 (1.405)
Dividend yield	0.260 (1.563)	0.240 (1.566)	0.00992** (2.024)	0.00661 (1.593)
Institutional ownership	0.0772 (0.634)	0.0432 (0.373)	0.00530 (1.549)	0.00447 (1.421)
CEO age	-0.0151*** (-3.697)	-0.0148*** (-3.813)	-0.000120 (-1.443)	5.09e-05 (0.703)
CEO tenure	0.0100* (1.788)	0.00966* (1.793)	0.000183 (1.475)	7.15e-05 (0.642)
CEO-Chair indicator	0.0272 (0.557)	0.0269 (0.578)	-5.76e-05 (-0.0511)	-0.000385 (-0.385)
ROA		5.514*** (7.692)		
Tobin's Q				0.0115*** (11.68)
Industry Fixed Effect	Yes	Yes	Yes	Yes
Quarter Fixed Effect	Yes	Yes	Yes	Yes
Inverse Mills Ratio	-1.152*** (-8.608)	-1.095*** (-8.658)	-0.0187*** (-6.057)	-0.00513* (-1.756)
Observations	11,587	11,587	11,587	11,587
Adjusted R <sup>2</sup>	0.398	0.434	0.091	0.144