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JEL Code: G11; G14; J28; M14

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I. INTRODUCTION

Environmental, social, and governance (ESG) has been one of the fastest growing phenomena in the recent decade and much attention has been paid not just by academics but also by firms and investors.¹ For example, in August 2019, the Business Roundtable that represents nearly 200 CEOs of America's biggest companies claimed the end to shareholder primacy and called for the role of a corporation to be redefined, suggesting that a large number of firms view sustainability issues as strategically important. In addition, BlackRock CEO Larry Fink sent a letter to investors in January 2020 detailing his plans to incorporate ESG as a new standard for investing. Investment managers that signed the UN Principles for Responsible Investments had over \$90 trillion asset under management in 2019. Despite its growth in saliency, ESG's link to firm value is hard to pin down because much of ESG related information is hard to quantify, subjective, and correlated with other firm dimensions (Khan, Serafeim, and Yoon, 2016; Berg, Kolbel, Rigobon, 2019).

In order to understand ESG's link to shareholder value, it is important to understand why firms engage in sustainability related practices as investment policies are a key determinant of firm value. Though the conclusions are largely mixed, there is a rich set of academic literature that examines why firms engage in ESG and whether such investments will enhance or destroy firm value. For example, a stream of literature argues that sustainability investments disproportionately raise a firm's costs, creating a disadvantage in a competitive market (Friedman, 1970; Jensen, 2002). They view ESG investments as inefficient and attribute them to captured or self-interested

¹ The terms "sustainability," "environmental, social, and governance" (ESG), and "corporate social responsibility" (CSR) have been used interchangeably in the past to describe a firm's voluntary actions to manage its environmental and social impact and increase its positive contribution to society. Throughout this paper, we use the word sustainability or ESG, given that more firms around the world use these words rather than CSR to describe the strategic aspect of their efforts to improve performance on ESG issues.

managers (Cheng, Hong, and Shue, 2014; Di Giuli and Kostovetsky, 2014). In contrast, papers such as Khan et al., (2016) and Eccles et al., (2014) found positive value implications of firm ESG efforts. They argue that ESG may enhance firm value by mitigating tail risks (Hoepner et al., 2018), protecting reputation (Fombrun and Shanley, 1990), leading to better resources and marketing outcomes (Moskowitz, 1972; Cochran and Wood, 1984), and attracting higher quality employees (Bode et al. 2015). However, the evidence about whether and when ESG actually leads to enhanced shareholder value still limited.

In this paper, we examine whether ESG coupled with employee satisfaction can enhance firm value. Human capital has become much more important in modern day business. As quality and innovation have become the focus of firm success (Zingales, 2000) employees have become value creating asset rather than expendable commodities (McGregor, 1960). Prior literature (e.g., Edmans 2011 and Green, Huang, Wen, and Zhou, 2019) examining employee satisfaction finds that satisfaction predicts stock returns and therefore is an important determinant of firm value. However, we don't know how ESG efforts may be related to employee satisfaction and firm value. For example, firm engagements in ESG may instill a sense of purpose to employees and motivate them (Gubler, Larkin, and Pierce, 2018; Welch and Yoon, 2020). In addition, motivated employees will be more productive (Bode et al., 2015), which may lead to enhanced firm value. In such a case, it is possible that ESG coupled with employee satisfaction may enhance firm value over and beyond the effect from employee satisfaction. On the other hand, if employee satisfaction is a sufficient statistic to firm value, then we would only observe a positive impact on firm value from employee satisfaction, but nothing incremental when coupled with ESG.

In order to empirically examine our research question, we use data obtained from MSCI ESG Ratings and Glassdoor during the period between 2011 and 2018 as signals of firm ESG

efforts and employee satisfaction. We test the future shareholder value implications of sustainability investments and employee satisfaction by using the double sort approach that identifies firms with high sustainability performance and employee satisfaction ratings. Specifically, we take firms that are in the top quartile of both of the two signals and compare these firms with several different groups using calendar-time portfolio regressions and testing for one-year-ahead abnormal stock return performance of the portfolio.

Results indicate equal-weighted (value-weighted) portfolio of firms with high ESG performance and employee satisfaction significantly outperform the portfolio of firms with low ratings on both topics by 5.61% (5.83%). These results are confirmed using firm-level panel regressions that account for a host of additional firm characteristics. In addition, the equal-weighted (value-weighted) portfolio of firms with high ESG performance and employee satisfaction outperform the firms with low ESG performance and high employee satisfaction by 2.75% (2.76%) and the firms with high ESG performance and low employee satisfaction by 5.64% (5.58%). Overall, the results suggest that ESG coupled with employee satisfaction predicts future stock returns and enhances shareholder value.

We then use ESG and employee satisfaction by themselves as a signal and create a long short portfolio to place our main findings with the existing literature. When we use ESG as the only signal we do not find a meaningful alpha in the long short portfolio. This results is consistent with Khan et al., (2016) that documented no alpha from the long/short portfolio when all ESG investments are used as a signal. We also use employee satisfaction as the only signal to create portfolios and find the long/short portfolio generates an annual equal-weighted (value-weighted) alpha of 2.43% (2.44%). Because we use five factor model, we view this result as similar to Green

et al. (2019) that used Glassdoor Ratings and documented an equal-weighted (value-weighted) annual alpha of 3.52% (3.08%) using the four factor model.

We then compare the portfolio of firms with high ESG performance and employee satisfaction in our main specification to these firms with high ESG and high employee satisfaction alone. We find that equal-weighted (value-weighted) long portfolio (i.e., firms with high ESG performance and employee satisfaction) outperform the portfolio of firms with high ESG alone by 3.49% (3.33%). Also, we find that this equal-weighted (value-weighted) long portfolio of firms outperform the portfolio of firms with high employee satisfaction alone by 1.60% (1.64%). This result indicates that ESG's role on shareholder value is incremental to that from employee satisfaction.

A series of additional tests confirm that our results are robust to alternative factor models, different subsamples or sub periods, and alternative portfolio construction rules. We also note that most of our results are driven by the firm social investments rather than environmental and governance related investments. Finally, we compare the operating performance of firms with high ESG performance and employee satisfaction compared to firms with low ratings on both topics. Consistent, with the stock return analysis, we find that firms in the long portfolio exhibit significantly higher future accounting performance (i.e., Sales and ROE) than firms in the short portfolio.

The research design mitigates a number of concerns about endogeneity by using empirical approaches from literature using return predictability: (i) the returns tests are predictive rather than contemporaneous regressions; (ii) the portfolio tests control for conventional risk factors, allowing attribution of the alpha related to ESG and employee satisfaction, which is standard in the asset

pricing literature; (iii) the portfolio tests are supplemented by firm-level return prediction regressions saturated with controls for known return predictors, and a host of firm characteristics.

However, we also note a few caveats to our findings. First, we cannot rule out the possibility of a correlated omitted variable that positively influences employee satisfaction, ESG, and future equity values unobserved by the market. Second, though our results suggest that firm social investments drive our results, readers should be cautious and note that we are not claiming that ESG causes employee satisfaction and that this leads to firm value. Rather, we document that portfolio of firms that score high on ESG and employee satisfaction significantly outperforms those firms with high employee satisfaction alone, indicating that employee satisfaction is an important condition for ESG to enhance shareholder value.

Notwithstanding, we believe our study makes the following important contributions to the existing literature. First, our paper adds to the stream of literature that debates shareholder implications of firm ESG investments. The mixed evidence from prior literature on the relationship between sustainability and firm performance motivates this work (Margolis and Walsh, 2003). Our results are similar in spirit to Khan, Serafeim, and Yoon (2016) by showing a circumstance in which ESG may predict future stock returns. Specifically, we show that ESG coupled with employee satisfaction predicts future stock return.

Second, our paper adds to the literature that examines the impact of employee satisfaction on shareholder return. Our results on high employee satisfaction are very close in economic magnitude to those documented by Edmans (2011) and Green et al., (2019). Edmans (2011) finds that portfolio of firms in the 100 Best Companies to Work for in America list earned a value-weighted annual four factor alpha of 3.5% and interpret this finding as reflecting firms' intangible assets. Green, Huang, Wen, and Zhou (2019) finds that firms with higher Δ Glassdoor Ratings

earned a value-weighted annual four factor alpha of 3.1% over the firms with low Δ Ratings.² We add to their works by not only validating their findings but also by showing that firms with high ESG Score *and* employee satisfaction outperform the firms with high employee satisfaction alone. This suggests that ESG leads to enhanced firm value when there are highly satisfied employees.

Third, our paper adds to the literature that examines why firms engage in ESG activities (Cochran and Wood, 1984; Moskowitz, 1972; Hoepner et al., 2018; Fombrun and Shanley, 1990). Our paper is in line with this stream of literature by showing that there is an interaction effect of firm ESG investments and employee satisfaction in creating shareholder value. Firm social-related investment and non-monetary compensations may influence employees in ways to enhance shareholder value.

The remainder of the paper is organized as follows. The next section provides the literature review and motivation. Section 3 describes the data and sample. Section 4 presents the research design and results. Section 5 concludes.

II.MOTIVATION

Examining employee focused ESG requires a review of literature on why firms engage in ESG, whether and how ESG may be related to shareholder value, the impact of employee satisfaction on firm value, and the impact of ESG in shaping employee satisfaction. We provide a detailed discussion below.

² According to Green et al. (2019), they also use the level of Glassdoor Rating for robustness in their Fama-MacBeth regression and find similar results (see pg 243).

Why Firms Engage in ESG

There is mixed evidence in the prior literature on the relation between sustainability and financial performance (Barnett and Salomon, 2006; Margolis and Walsh, 2003; Orlitzky, Schmidt and Rynes, 2003; Hillman and Keim, 2001; McWilliams and Siegel, 2000). On one hand, papers found that firms engage in sustainability to obtain better resources (Cochran and Wood, 1984; Waddock and Graves, 1997), attract higher quality employees (Turban and Greening, 1997), and better market products and services (Moskowitz, 1972; Fombrun, 1996). Some papers found that sustainability practices could also mitigate the likelihood of negative regulatory, legislative or fiscal action (Hillman and Keim, 2001) and tail risk (Hoepner et al., 2018), while protecting and enhancing corporate reputation (Fombrun and Shanley, 1990; Fombrun, 2005; Freeman et al., 2007).

On the other hand, some papers found that sustainability related investments may be inefficient investments that is led by managers incentives to extract private benefits (Brammer and Millington, 2008; Cheng, Hong, and Shue, 2014) or to serve their political beliefs and agenda (Di Giuli and Kostovetsky, 2014). According to this stream of literature, sustainability investments disproportionately raise a firm's costs, creating a disadvantage in a competitive market (Friedman, 1970; Aupperle et al., 1985; McWilliams and Siegel, 1997; Jensen, 2002).

ESG and Firm Value

While a vast majority of papers fail to document the value enhancing role of firm sustainability practices, there are a few papers that provide empirical evidence consistent with sustainability investments creating financial value. Khan et al., (2016) find that firms that invest in material ESG investments improve shareholder value. Eccles et al. (2014) identify a set of firms that adopted corporate policies related to environmental and social issues before the adoption of

such policies became widespread, and find that these firms outperform their peers in the future in terms of stock market and accounting performance. Borgers et al. (2013) find that firms with better sustainability performance initially exhibit higher risk-adjusted returns but document that this result has reversed in more recent years. Dimson, Karakas and Li (2014) show that after successful engagements, particularly on environmental/social issues, companies experience improved accounting performance.

Employee Satisfaction and Firm Value

Early theories (e.g., Taylor, 1911) about labor were driven by the concept that employees are just like other raw material inputs and the intended management goal is to minimize cost while extracting the maximum output, making employee satisfaction inconsequential. On the other hand, human relations theories (e.g., Maslow, 1943; Herzberg, 1959; McGregor, 1960) view employees as critical assets to organizations (e.g. not-commodities) who can create increased value in ways raw materials cannot. Such notions are consistent with modern-day labor markets that do not view labor as a replaceable commodity, but value human capital as an important determinant of innovation (Zingales, 2000). In similar spirit, papers have documented that the intrinsic motivation of workers is an important driver of employees (Kitzmueller and Shimshack, 2012; Leete, 2001; Mocan and Tekin, 2003).

A few papers examine employee satisfaction's impact on shareholder value. Edmans (2011) uses the list from Fortune Magazine's 100 Best Companies to Work For and find that the value-weighted portfolio of these firms outperform the market by 3.5%. He interprets measures of employee satisfaction as reflecting firms' intangible assets. Green et al., (2019) use the data from Glassdoor like this paper and document an annualized alpha of 3.1%. They use the change in quarterly Glassdoor rating as their main signal but also state that they find similar results using

level of rating as an alternative signal. Their interpretation of results is that crowdsourced employee ratings is informative in predicting stock returns and employee satisfaction has a causal effect on firm value. Sheng (2019) also use Glassdoor employer reviews are associated with stock returns and finds evidence consistent with hedge funds trading on employer reviews. Grennan (2019) show that corporate culture is an important channel through which governance affects firm value.

ESG, Employee Satisfaction and Employee Engagement

Bauman and Skitka (2012) points out that most studies on ESG and employee satisfaction are done through survey and small-scale data, noting employee level data is hard to obtain and is the likely source of paucity of ESG research on employees. Generally, ESG is viewed as a way to get additional employee satisfaction. As the Society for Human Resource Management (SHRM 2007) noted “Talent-strapped companies have found that ESG can be a draw in a crowded labor marketplace and can grab the attention of a certain type of highly skilled, highly motivated employee.” However, the evidence is somewhat mixed. Carnahan, Kryscynski, and Olson (2017) document law firms with more ESG activity (i.e., pro-bono cases) experienced higher turnover rates noting that investments in ESG may increase employee departures from organizations under certain conditions. However, papers such as Borghesi, Houston, and Naranjo (2014) find that if certain ESG activities come too close to represent personal political causes of executives it may have a negative effect, discouraging certain employees.

Considering the prior employee satisfaction findings, we argue the following. If ESG only impacts firm value via employee satisfaction (e.g., attract higher quality human capital via more satisfied employees), then employee satisfaction should be a sufficient measure to capture firm

value. Instead, we argue employee satisfaction may be needed for ESG activities to lead to shareholder value.

III. DATA AND SAMPLE DATA AND SAMPLE

ESG Data

Data on firm ESG performance comes from MSCI ESG Ratings. The ratings are based on 37 key issues, which correspond to one of ten macro themes that MSCI identifies as concerns to investors. The ten macro themes are climate change, natural capital, pollution and waste, environmental opportunities, human capital, product liability, stakeholder opposition, social opportunities, corporate governance, and corporate behavior. Key issues are annually selected for each of the 156 GICS Subindustries and weighted according to MSCI's materiality-mapping framework. MSCI aggregates the issue data to an overall score, where each issue is weighted according to its assessed materiality in each industry.

MSCI measures the risk and opportunity exposure of each company by combining company-specific operations data with key-issue-relevant macro-level data relating to the company's geography of operations and business segment. Company-operations data are sourced from corporate reporting, such as annual reports, investor presentations, and financial and regulatory filings, with macro-level data being sourced from a wide variety of academic, government, and NGO databases. Similarly, risk and opportunity management-related data come from corporate documents, government data, news media, relevant organizations and professionals, and an assortment of popular, trade, and academic journals. As part of its data-verification process, MSCI engages in direct communication with companies and invites companies to participate in a data-review process, which includes commenting on the accuracy of company data for all MSCI ESG research reports. MSCI ESG Ratings are not backfilled.

We use MSCI ESG Ratings because it is not only the largest ESG data provider to the investment community (Christensen, Serafeim, and Sikochi, 2019), but also gives us the most number of firm-years when merged with our Glassdoor data when compared with Sustainalytics and Thomson Reuters Asset4. Of the 50 largest asset managers, ranked by assets under management, 46 use the MSCI performance score, with the total number of clients being 1,200+ investment firms (Serafeim and Yoon, 2020). We do not use MSCI KLD data used by Khan et al., (2016) to link ESG to stock returns, because according to MSCI, KLD Data now only exists for 400 companies, is mostly used by academic research, and is now being phased out as MSCI shifts towards MSCI ESG Ratings as their main ESG dataset. Our final sample includes MSCI ESG Ratings data from 2011 and 2018.

Glassdoor Data

We obtain employee satisfaction ratings from Glassdoor.³ Founded in 2007, Glassdoor maintains the largest database of anonymous employee reviews of employment experiences. Glassdoor's online platform provides company reviews, job-interview reports, salary reports, and CEO approval ratings for over 600,000 public and private companies. Glassdoor requires an active email address or a valid social networking account (e.g., Facebook) to prevent the company from promoting itself. Also, according to Glassdoor, they use an algorithm to detect fraudulent reviews and also have a human go through the content to eliminate invalid reviews (Green et al., 2019).

Those who review their employment at a company provide their overall perspective of the employer on a scale of 1 to 5. In addition, the reviewer provides a similar scaled score across more granular sub-ratings (e.g., career opportunities, compensation, senior leadership, work-life

³ While we received data directly from Glassdoor, we note that this information is also publicly available.

balance, and culture and values). We use the overall rating provided by the employees as a proxy for employee satisfaction but also use the sub-ratings in our empirical tests to examine where our empirical effect is coming from. In addition to the scaled ratings, employees also have the opportunity to input textual responses for pros and cons of working at the firm.

Glassdoor's unique way of both providing and acquiring new reviews also helps with the research design. A common bias in any survey setting is the fact that individuals voluntarily submit anonymous responses, which skews reviews being provided by a certain of employee or a certain of type of reviews. When views are made public (e.g., Yelp!) there is an empirical bias towards positive reviews. However, in 2015, Glassdoor implemented a unique way of providing and acquiring new reviews that has been shown to limit bias (Marinescu et. al., 2018) which the firm calls the "Give-to-Get" model. Glassdoor limits access to its online information to job seekers unless the job seeker provides their own employer review. Marinescu et. al., (2018) examine this approach and complement it with a randomized controlled experiment finding incentives, like Glassdoor information, can significantly reduce bias.

Other Firm-Level Characteristics

We obtain firm level characteristic data from Compusat and obtain all stock price related data from CRSP. We obtain Fama-French five factors from Kenneth French's website.

Descriptive Statistics

Table 1 describes the sample. Panel A presents the number of observations by year. There are 10,729 reviews of 263 unique companies in 2011 growing to 128,478 reviews of 1,482 unique companies by 2018. Panel B presents the 991,244 review observations by GICS sector. The top

three sectors with the most reviews include: Consumer Discretionary Sector with 1,539 firms having 374,480 reviews, Information Technology Sector with 1,717 firms having 177,644 reviews, and the Industrials Sector with 127,732 reviews across 1,653 firms. The lowest reviewed sectors include: Real Estate with 4,839 reviews of 217 firms, Financials with 7,184 reviews of 146 firms, and Utilities with 8,581 reviews across 364 firms.

Table 2 Panel A presents the summary statistics. Glassdoor Rating has a mean and median of 3.28 and 3.00, and a standard deviation of 0.86. The sub-categories of Glassdoor Rating (i.e., Career Opportunities, Compensation Benefits, Senior Leadership, Work-Life Balance, and Culture Values) are all similarly distributed to Glassdoor Rating. We note that the subcategories are slightly less populated than overall Glassdoor Rating. This is because reviewers can choose not to answer some of the subcategories while providing an answer to the overall rating. MSCI ESG Score has a mean and median of 4.53 and 4.50, and a standard deviation of 1.09. Environmental score (Env Score) has a mean and median of 4.79 and 4.60, and a standard deviation of 2.02. Social score (Soc Score) has a mean and median of 4.39 and 4.40, and a standard deviation of 1.61. Governance score (Gov Score) has a mean and median of 5.60 and 5.30, and a standard deviation of 2.27. An average firm has a Size of 14.96, MTB of 3.72, ROE of 0.09, SG&A/Sales of 0.26, Adv Exp/Sales of 0.01, R&D/Sales of 0.22, and Capex/PPE of 0.11.

Panel B presents the correlation table. We first note a high correlation among sub-category ratings from Glassdoor. For example, correlation between Glassdoor Rating and Career Opportunities is 0.72. However, Glassdoor Rating's correlation between MSCI ESG Score, Environmental Score, Social Score, and Governance Score are 0.01, 0.01, 0.00, and 0.00, respectively, and sometimes negative across subcategories. Employee satisfaction and ESG scores are not correlated across firms.

While one's prior could be that Glassdoor Rating and ESG Score (especially the social score) would measure similar things or at least be correlated, they are not. This low correlation suggests the two measures are capturing two different attributes of each firm. While we cannot rule out a firm specific correlated omitted variable, low correlation between the variables alleviates some of these issues. We also note that Size is positively but moderately correlated (0.20) with Glassdoor Rating.

IV. RESEARCH DESIGN & RESULTS

Calendar Time Portfolio Returns Using ESG Score or Glassdoor as Signals

To test the future performance implications of firms' ESG and employee satisfaction performance, we form portfolios based on different signals and conduct the following regression:

$$R_{i,t} = \alpha + \beta_{MKT}MKT_{i,t} + \beta_{SMB}SMB_{i,t} + \beta_{HML}HML_{i,t} + \beta_{RMW}RMW_{i,t} + \beta_{CMA}CMA_{i,t} + \varepsilon_{i,t}$$

where $R_{i,t}$ is the return on portfolio i in month t in excess of the risk free rate. $MKT_{i,t}$ is the market excess return; $SMB_{i,t}$ and $HML_{i,t}$ are the Fama and French (1993) size and book-to-market factors; $RMW_{i,t}$ and $CMA_{i,t}$ are profitability and investment factors from Fama and French (2016). α is an intercept that captured the abnormal risk-adjusted return. This research design adopts controls for standard risk factors and then tests whether a portfolio long and short scoring high or low in the focal characteristic yields alpha.

First, we form portfolios based on just MSCI ESG score. Specifically, we take the firm-level MSCI ESG score during the year t as a signal and construct portfolios at the beginning of January of $t+1$.⁴ Table 3 Panel A presents the estimated coefficients of a five-factor model for the bottom and top quartile portfolios. We do not find results for portfolios constructed based on ESG

⁴ We use an annual signal to reduce multiple rebalancing during the year.

ratings alone, with the long-short portfolio having insignificant alpha. Specifically, the portfolios of firms with high ESG score yields an annualized alpha of 0.91% (t-stat: 0.93) and those firms with low ESG yields an annualized alpha of 0.99% (t-stat: 0.83). When we take the value-weighted approach, the portfolios of firms with high ESG yields an annualized alpha of 0.87% (t-stat: 0.91) and those firms with low ESG yields an annualized alpha of 0.66% (t-stat: 0.58). Similar to the findings of Khan et al., (2016), the difference in alpha is statistically insignificant, which suggest that MSCI Score by itself is not a meaningful signal that predicts future stock returns.

In Panel B, we consider Glassdoor rating as the only signal. When we take the equal-weighted approach, the portfolios of firms with high employee satisfaction yields an annualized alpha of 2.80% (t-stat: 2.70) and those firms with low employee satisfaction yields an annualized alpha of 0.37% (t-stat: 0.29). The difference in alphas is 2.43% that is statistically significant at the 5% level. When we take the value-weighted approach, the portfolios of firms with high employee satisfaction yields an annualized alpha of 2.57% (t-stat: 2.53) and those firms with low employee satisfaction yields an annualized alpha of 0.13% (t-stat: 0.58). The difference in alphas is 2.44% that is statistically significant at the 5% level. This set of results on employee satisfaction confirms the findings of Edmans (2011) and Green et. al., (2019) that finds employee satisfaction predicts future stock returns with similar economic magnitude.

Calendar Time Portfolio Returns Using ESG Score and Glassdoor as Signals

Next, we construct a double sort portfolio based on the two signals (i.e., ESG and employee satisfaction) to examine whether there is an interaction effect between ESG and employee satisfaction to firm value. Specifically, we use quartile cuts to form portfolios and take the portfolio of firms that score high on both ESG Score and employee satisfaction as our long portfolio.

Table 4 presents the results. In Panel A, we take the equal-weighted approach. We first find that the portfolio of firms with high ESG Score and high satisfaction significantly outperforms those firms with low ESG and low satisfaction. Specifically, we find (presented in column 5) that the portfolio of firms that score high on ESG and satisfaction yields an annualized alpha of 4.40% (t-stat: 2.66) and the portfolio of firms that score low on both dimensions yields an annualized alpha of -1.21% (t-stat: -0.57). The difference in alphas is 5.61% and is statistically significant at the 5% level. Overall, this suggests that ESG and employee satisfaction combined can be used as a signal to predict future stock returns.

In addition, we compare the portfolio of firms with high ESG and satisfaction (i.e., our long portfolio) to the portfolio of firms with high employee satisfaction only (i.e., our long portfolio in Table 3). We find that the portfolio of firms that score high on ESG and satisfaction outperforms the portfolio of firms that score high on employee satisfaction only. Specifically, the difference in an annualized alpha is 1.60% and is statistically significant at the 5% level. Lastly, we compare the portfolio of firms with high ESG and satisfaction (i.e., our long portfolio) to the portfolio of firms with low ESG and high satisfaction and the portfolio of firms with high ESG and low satisfaction. Our long portfolio outperforms the portfolio of firms with low ESG and high satisfaction by 2.75% (p-value < 0.05) and the portfolio of firms with high ESG and low satisfaction by 5.64% (p-value < 0.01).

We present the result using value-weighted approach in Panel B. We note that the significance of the results are economically and statistically similar to those in Panel A and omit detailed discussion for brevity. Overall, our finding in Table 4 provide the following. First, we confirm that employee satisfaction predicts future stock returns as noted in prior literature. Second, we find employee satisfaction coupled with ESG has a stronger impact on firm value than

employee satisfaction alone. Third, our results suggest that ESG leads to enhance shareholder value when there are employees that are more satisfied. We view that this key finding makes a contribution to the ESG literature because it presents a circumstance in which ESG enhances value—namely when employees are bought-in and engaged in the efforts of the firm.

Additional Tests on ESG Score and Glassdoor as Signals

In Table 5, we conduct additional tests to decompose returns and to assess the robustness of our findings in Table 4. We first decompose the ESG score used in previous tables to scores that related to environment, social, and governance and consider these signals separately to form portfolios. We create double sorted portfolios based on the grouped component of employee satisfaction and individual category ESG component (e.g., Environment, Social, or Governance). We find that the portfolio of firms with high environment score and employee satisfaction outperforms the portfolio of firms with low environment score and employee satisfaction by 1.49% and 1.76% using equal-weighted and value-weighted approaches, respectively. However, the differences in alphas are not statistically significant. When we use MSCI Social Score, the portfolio of firms with high social score and employee satisfaction outperforms the portfolio of firms with low social score and employee satisfaction by 3.96% (p-value<0.10) and 4.04% (p-value<0.05) using equal-weighted and value-weighted approaches, respectively. When we use MSCI Governance Score, the portfolio of firms with high governance score and employee satisfaction outperforms the portfolio of firms with low governance score and employee satisfaction by 1.47% and 1.94% using equal-weighted and value-weighted approaches, respectively. But, as with environmental score, the differences in alphas are not statistically significant.

Second, we use sub-ratings from Glassdoor and use each of them with the grouped ESG (i.e., aggregate) score to create signals. When we use employee ratings on career opportunities, the portfolio of firms with high career opportunities and ESG outperforms the portfolio of firms with low scores on both dimension by 5.11% (p-value<0.05) and 5.29% (p-value<0.05) using equal-weighted and value-weighted approaches, respectively. When we use employee ratings on compensation, the portfolio of firms with high satisfaction from compensation and ESG outperforms the portfolio of firms with low scores on both dimension by 3.60% and 3.59% using equal-weighted and value-weighted approaches, respectively. However, the differences in alphas are not statistically significant.

When we use employee ratings on senior leadership, the portfolio of firms with high senior leadership and ESG outperforms the portfolio of firms with low scores on both dimension by 5.90% (p-value<0.05) and 5.99% (p-value<0.01) using equal-weighted and value-weighted approaches, respectively. When we use employee ratings on work-life balance, the portfolio of firms with high work-life balance and ESG outperforms the portfolio of firms with low scores on both dimension by 9.55% (p-value<0.01) and 9.51% (p-value<0.01) using equal-weighted and value-weighted approaches, respectively. When we use employee ratings on culture/values, the portfolio of firms with high culture/values and ESG outperforms the portfolio of firms with low scores on both dimension by 5.13% (p-value<0.05) and 5.20% (p-value<0.01) using equal-weighted and value-weighted approaches, respectively.

We view that this finding has implications on prior literature such as Edmans (2011). The intangible value created by employee satisfaction may be coming from more than just increasing wages—but by changing firm specific attributes of employment (e.g., career opportunities, culture and values, or work life balance).

Third, we analyze performance on a different cut of the portfolio. When we use the tercile cut approach, we find outperformance of 2.45% (p-value<0.05) and 2.65% (p-value<0.05) using equal and value-weighted portfolios respectively. When we use the quintile cut, we find outperformance of 5.62% (p-value<0.10) and 5.92% (p-value<0.01) using equal and value-weighted portfolios respectively. We do not use decile cuts in our data as double sorting to identify the set of firms that score high in both signals will lead to extremely thin portfolios. Next, we analyze performance over different time periods. We split the analysis period to before and after 2014. This is the midpoint of our total period of examination. We find outperformance of 0.35% and 0.48% using equal and value-weighted portfolios respectively for the period 2011-2014 and outperformance of 5.44% (p-value<0.05) and 5.76% (p-value<0.05) using equal and value-weighted portfolios respectively for the period 2015-2018. We note that stronger results in the latter half of the sample period could reflect the improved data collection process Glassdoor implemented post 2015 using the give to get model identified in the data section.

Last, we assess the robustness of results to different factor models. We estimate alphas using the Fama-French (1993) three-factor model that excludes the momentum and liquidity factors, or a four-factor model that excludes the liquidity factor (Carhart 1997). The results are unchanged using these alternative factor models. We find a 3.38 % and 3.55 % outperformance on a three- and four-factor model respectively using equal-weighted portfolios. The outperformance is 3.64% and 3.82% on a three- and four-factor model respectively using value-weighted portfolios.

Firm-Level Panel Regression

In Table 6 present firm level panel regressions that control for several firm level attributes that could predict future returns in a way not captured in the Fama French (1993) regression specification presented in the previous tables. Specifically, we conduct a Fama-MacBeth (1973) estimation of

$$R_{i,t} = \beta_0 + \beta_1 * Hi\ ESG \ \& \ Hi \ Satisfaction + \beta_2 * Lo \ ESG \ \& \ Lo \ Satisfaction + \beta_3 * Z_{i,t} + \varepsilon_{i,t}$$

where $R_{i,t}$ is the stock return for firm i in month t . Hi ESG & Hi Satisfaction (Lo ESG & Lo Satisfaction) indicates firms that have high (low) ESG Score and high (low) employee satisfaction score. $Z_{i,t}$ is a vector of firm characteristics. The first set of controls are inspired by Edmans (2011). Ret 2-3, Ret 4-6, Ret 7-12 are the logs of the compounded returns in month $t-3$ to $t-2$, month $t-6$ to $t-4$, and month $t-12$ to $t-7$, respectively. PRC is the price at the end of month $t-2$. DVOL is the dollar trading volume (in millions) in month $t-2$. Size is the natural log of market capitalization. MTB is market value at the end of the calendar year over book value of equity. We also add additional controls for robustness. ROE is defined as net income over average shareholder equity. SG&A/Sales is selling, general, and administrative expense over sales. Adv Exp/Sales is advertising expense over sales. R&D/Sales is R&D expense over sales. Capex/PPE is capital expenditure divided by property plant and equipment.

The results are presented in Table 6. In column 1, we consider control variables from Edmans (2011). The coefficient estimates on High ESG & High Satisfaction and Low ESG & Low Satisfaction are 0.0040 (t-stat: 3.71) and 0.0004 (t-stat: 0.21). This means that an annualized alpha from the long short portfolio is 4.41% that is statistically significant at the 1% level. In column 2, we consider all the control variables mentioned above. The coefficient estimates on High ESG & High Satisfaction and Low ESG & Low Satisfaction are 0.0038 (t-stat: 3.55) and 0.0003 (t-stat:

0.17). This means that an annualized alpha from the long short portfolio is 4.28% that is statistically significant at the 1% level. Overall, the firm-level panel regression results are similar to those presented in calendar time portfolio regressions indicating ESG and satisfaction can be used as a signal to predict firm value.

Future Accounting Performance

Up to this point, all regressions examine the future stock market performance as a dependent variable to understand the value attributable to ESG and employee satisfaction. To complement these results, we also examine the future changes in accounting performance. This analysis helps to identify if the firm value identified in prior results are due to price pressure or firm operations. The number of investors integrating ESG data in investment decisions has grown considerably over the period of study potentially putting price pressure on the stocks of firms with good ESG performance and high employee satisfaction—possibly driving positive alphas found earlier. If firms investing in sustainability issues and employee satisfaction exhibit superior future accounting performance, this would suggest that price pressure alone cannot explain the superior future stock price performance.

Table 7 presents the future changes in accounting performance using sales and profitability. In Panel A, we compare Sales of firms with low ESG and low satisfaction and firms with high ESG and high satisfaction. We find that changes in sales are more positive for the portfolio of firms performing better on ESG and employee satisfaction. Across all time horizons the difference in future changes in sales and profitability is positive. Starting from the second year in the future and until the fourth year in the future we find significant difference in sales growth of 2.92% to 4.81%. In Panel B, we compare ROE instead of Sales. We find that changes in ROE are more

positive for the portfolio of firms performing better on ESG and employee satisfaction. Across all time horizons the difference in future changes in sales and profitability is positive. Starting from the third year in the future and until the fifth year in the future we find significant difference in ROE growth of 6.60% to 10.74%.

The accounting results showing high ESG coupled with high employee satisfaction flow through a firm's accounting performance in later periods, it helps to explain the delay in market pricing observed in alpha. Investors seem to (eventually) incorporate this high ESG and high satisfaction into performance, suggesting the results are not driven by stock demand for the newly awoken investor class that value ESG or employee satisfaction creating an upward price pressure.

V. CONCLUSION

In this paper, we provide evidence that ESG coupled with employee satisfaction predicts future stock returns. Using calendar-time portfolio stock returns and firm-level panel regressions, we find that firms with high ratings on both ESG and employee satisfaction significantly outperform those with low ratings on both. In addition, firms with high ratings on both issues outperform those with high employee satisfaction alone. We note that these firms also exhibit superior accounting performance in the future.

We believe that our paper makes two important contribution to the literature. First, our paper adds to the papers that examined shareholder implications of firm ESG investments. We show that employee satisfaction may be a condition that better enables ESG to enhance value. Second, we also add to the literature on employee satisfaction and shareholder value. We add by showing that employee satisfaction coupled with ESG leads to value over and beyond the effect from employee satisfaction alone. Last, we provide evidence that suggest that firm engagements

in ESG may have synergies when coupled with employee satisfaction. Overall, our results demonstrate that ESG coupled with employee satisfaction is a valuable signal to predict stock returns and these findings may have implications for asset managers who integrate ESG factors into their portfolios.

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Table 1: Sample Description

This table describes the sample. Panel A (B) presents the number of observations by year (industry).

Panel A: By Year

Year	# of Firm	# of Reviews
2011	263	10,729
2012	348	23,669
2013	1,131	70,359
2014	1,205	115,266
2015	1,419	208,964
2016	1,517	216,956
2017	1,519	216,823
2018	1,482	128,478
Total	8,884	991,244

Panel B: By Industry

GICS Industry	# of Firm	# of Reviews
Energy	574	18,630
Materials	584	20,399
Industrials	1,653	127,732
Consumer Discretionary	1,539	374,480
Consumer Staples	492	91,165
Health Care	1,205	83,428
Financials	146	7,184
Information Technology	1,717	177,644
Communication Services	411	77,162
Utilities	346	8,581
Real Estate	217	4,839
Total	8,884	991,244

Table 2 Descriptive Statistics

This table presents the descriptive statistics. Glassdoor Rating is the median overall glassdoor rating. MSCI Score is the median ESG Score from MSCI. Size is the natural log of market capitalization. MTB is market value at the end of the calendar year over book value of equity. ROE is defined as net income over average shareholder equity. SG&A/Sales is selling, general, and administrative expense over sales. Adv Exp/Sales is advertising expense over sales. R&D/Sales is R&D expense over sales. Capex/PPE is capital expenditure divided by property plant and equipment.

Panel A. Summary Statistics

Variable	N	Mean	S.D.	25%	Median	75%
Glassdoor Rating	8,884	3.28	0.86	3.00	3.00	4.00
Career Opportunities	8,819	2.99	0.81	2.50	3.00	3.50
Compensation Benefits	8,819	3.39	0.77	3.00	3.00	4.00
Senior Leadership	8,815	2.83	0.96	2.00	3.00	3.00
Work Life	8,819	3.30	0.85	3.00	3.00	4.00
Culture Values	8,134	3.22	1.01	3.00	3.00	4.00
MSCI ESG Score	8,884	4.53	1.09	3.88	4.50	5.20
Env Score	8,884	4.79	2.02	3.40	4.60	6.00
Soc Score	8,884	4.39	1.61	3.40	4.40	5.40
Gov Score	8,884	5.60	2.27	4.00	5.30	6.99
Size	8,884	14.96	1.56	13.82	14.87	16.00
MTB	8,884	3.72	258.83	1.41	2.41	4.21
ROE	8,884	0.09	0.81	0.02	0.10	0.19
SG&A/Sales	8,884	0.26	0.73	0.08	0.19	0.34
Adv Exp/Sales	8,884	0.01	0.03	0.00	0.00	0.01
R&D/Sales	8,884	0.22	2.60	0.00	0.00	0.06
Capex/PPE	8,884	0.11	0.16	0.06	0.09	0.13

Panel B. Correlation Table

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1 Glassdoor Rating	1.00																
2 Career Opportunities	0.72	1.00															
3 Compensation Benefits	0.60	0.55	1.00														
4 Senior Leadership	0.77	0.70	0.53	1.00													
5 Work Life	0.63	0.51	0.46	0.62	1.00												
6 Culture Values	0.78	0.69	0.54	0.78	0.65	1.00											
7 MSCI ESG Score	0.01	0.02	-0.02	0.01	0.04	0.03	1.00										
8 Env Score	0.01	0.02	-0.02	0.00	0.03	0.03	0.57	1.00									
9 Soc Score	0.00	-0.01	-0.03	-0.01	0.03	-0.01	0.63	0.09	1.00								
10 Gov Score	0.00	0.00	0.01	0.01	0.02	0.01	0.23	-0.08	-0.02	1.00							
11 Size	0.20	0.21	0.24	0.17	0.11	0.19	0.10	0.16	-0.02	0.03	1.00						
12 MTB	0.01	0.00	0.00	0.01	0.01	0.01	0.02	0.03	0.01	0.00	0.01	1.00					
13 ROE	0.00	0.02	0.00	0.01	0.01	0.01	0.04	0.03	0.01	0.03	0.10	0.00	1.00				
14 SG&A/Sales	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	0.00	0.00	0.00	-0.01	0.00	0.00	-0.02	1.00			
15 Adv Exp/Sales	0.06	0.04	0.02	0.06	0.09	0.09	-0.05	0.03	-0.05	-0.05	0.01	0.02	-0.02	0.01	1.00		
16 R&D/Sales	0.04	0.04	0.03	0.06	0.03	0.04	0.00	0.01	0.00	-0.02	-0.05	0.00	-0.08	0.26	-0.01	1.00	
17 Capex/PPE	0.02	0.05	0.02	0.04	0.01	0.05	0.00	0.01	0.00	0.01	-0.03	0.00	-0.06	0.01	0.06	0.04	1.00

Table 3. Five Factor Calendar Time Portfolios Using Glassdoor Rating and/or MSCI Score

The table reports alphas, factor loadings, and t-statistics from monthly calendar-time Fama-French regressions for equal- and value-weighted portfolios. Classifications are based on glassdoor rating and/or MSCI Score. The intersections of quartile portfolios are formed to estimate the regressions. Firms scoring at the bottom (Short Portfolio) and top (Long Portfolio) quartiles of the signal are included in the portfolios. The regressions are estimated from January 2011 to December 2019. Market is the market excess return; SMB and HML are the Fama and French (1993) size and book-to-market factors; RMW and CMA are profitability and investment factors from Fama and French (2016). ***, **, and * on difference in alphas indicate two-tailed p-value less than 1, 5, and 10%, respectively.

Panel A. Long/Short Portfolio on MSCI Score Only

Parameter	Equal-Weighted				Value-Weighted			
	(1)		(2)		(3)		(4)	
	Low ESG		High ESG		Low ESG		High ESG	
	Estimate	t	Estimate	t	Estimate	t	Estimate	t
Intercept	0.0008	0.83	0.0008	0.93	0.0006	0.58	0.0007	0.91
Market	1.0358	31.45	0.9889	25.50	1.0333	32.61	0.9847	26.67
SMB	0.5605	11.70	0.4463	10.95	0.5211	11.27	0.4061	10.21
HML	0.1805	3.82	0.0841	1.88	0.1625	3.52	0.0717	1.67
RMW	0.1217	1.58	-0.0351	-0.57	0.1186	1.60	-0.0381	-0.63
CMA	0.0650	0.85	0.0704	1.15	0.0516	0.69	0.0706	1.18
	0.0021	2.94						
N	108		108		108		108	
Annualized Alpha	0.99%		0.91%		0.66%		0.87%	
Difference in Alphas			-0.08%				0.21%	

Panel B. Long/Short Portfolio on Glassdoor Rating Only

Parameter	Equal-Weighted				Value-Weighted			
	(1)		(2)		(3)		(4)	
	Low Satisfaction		High Satisfaction		Low Satisfaction		High Satisfaction	
	Estimate	t	Estimate	t	Estimate	t	Estimate	t
Intercept	0.0003	0.29	0.0023	2.70	0.0001	0.10	0.0021	2.53
Market	1.0151	24.44	0.9899	32.58	1.0125	25.23	0.9901	32.97
SMB	0.7987	14.74	0.5189	11.46	0.7662	14.57	0.4833	10.85
HML	0.1553	2.90	0.0414	1.19	0.1382	2.69	0.0247	0.74
RMW	0.0510	0.63	-0.1498	-2.29	0.0612	0.79	-0.1487	-2.40
CMA	0.1089	1.32	-0.0606	-0.95	0.0993	1.25	-0.0485	-0.78
N	108		108		108		108	
Annualized Alpha	0.37%		2.80%		0.13%		2.57%	
Difference in Alphas			2.43% **				2.44% **	

Table 4. Five Factor Calendar Time Portfolios Using Glassdoor Rating and/or MSCI Score

The table reports alphas, factor loadings, and t-statistics from monthly calendar-time Fama-French regressions for equal- and value-weighted portfolios. Classifications are based on glassdoor rating and/or MSCI Score. The intersections of quartile portfolios are formed to estimate the regressions. Firms scoring at the bottom (Short Portfolio) and top (Long Portfolio) quartiles of the signal are included in the portfolios. The regressions are estimated from January 2011 to December 2019. Market is the market excess return; SMB and HML are the Fama and French (1993) size and book-to-market factors; RMW and CMA are profitability and investment factors from Fama and French (2016). ***, **, and * on difference in alphas indicate two-tailed p-value less than 1, 5, and 10%, respectively.

Panel A. Long/Short Portfolio on both Glassdoor Rating and MSCI Score Using Equal-Weighted Approach

Parameter	Equal-Weighted									
	(1)		(2)		(3)		(4)		(5)	
	Low ESG & Low Satisfaction		Low ESG & High Satisfaction		High ESG & Low Satisfaction		High Satisfaction Only		High ESG & High Satisfaction	
	Estimate	t	Estimate	t	Estimate	t	Estimate	t	Estimate	t
Intercept	-0.0010	-0.57	0.0014	2.13	-0.0010	-0.66	0.0023	2.70	0.0036	2.66
Market	1.0858	21.98	1.0041	44.30	0.9743	12.79	0.9899	32.58	0.9778	19.94
SMB	0.8020	9.08	0.5440	17.03	0.7304	9.27	0.5189	11.46	0.4175	5.65
HML	0.1868	2.13	0.1551	4.57	0.0303	0.33	0.0414	1.19	-0.1003	-1.75
RMW	0.3412	2.80	-0.0405	-0.71	0.1076	0.87	-0.1498	-2.29	-0.1885	-1.93
CMA	0.2640	2.17	0.0228	0.44	0.0836	0.67	-0.0606	-0.95	-0.0111	-0.13
N	108		108		108		108		108	
Annualized Alpha	-1.21%		1.65%		-1.24%		2.80%		4.40%	
Diff in Alphas relative to Col (5)	5.61%	**	2.75%	**	5.64%	***	1.60%	**		

Panel B. Long/Short Portfolio on both Glassdoor Rating and MSCI Score Using Value-Weighted Approach

Parameter	Value-Weighted									
	(1)		(2)		(3)		(4)		(5)	
	Low ESG & Low Satisfaction		Low ESG & High Satisfaction		High ESG & Low Satisfaction		High Satisfaction Only		High ESG & High Satisfaction	
	Estimate	t	Estimate	t	Estimate	t	Estimate	t	Estimate	t
Intercept	-0.0014	-0.80	0.0012	1.94	-0.0012	-0.75	0.0021	2.53	0.0034	2.55
Market	1.0823	22.51	1.0020	46.56	0.9672	12.98	0.9901	32.97	0.9797	20.58
SMB	0.7663	8.87	0.5070	16.55	0.6942	8.97	0.4833	10.85	0.3764	5.21
HML	0.1609	1.89	0.1394	4.38	0.0197	0.22	0.0247	0.74	-0.1072	-1.88
RMW	0.3369	2.85	-0.0355	-0.66	0.1269	1.03	-0.1487	-2.40	-0.1943	-1.99
CMA	0.2547	2.16	0.0210	0.42	0.0689	0.55	-0.0485	-0.78	0.0019	0.02
N	108		108		108		108		108	
Annualized Alpha	-1.63%		1.44%		-1.38%		2.57%		4.20%	
Diff in Alphas relative to Col (5)	5.83% **		2.76% **		5.58% ***		1.64% **			

Table 5. Robustness Test

The table reports alphas, factor loadings, and t-statistics from monthly calendar-time Fama-French regressions for equal- and value-weighted portfolios. Classifications are based on glassdoor rating and/or MSCI Score. The intersections of quartile portfolios are formed to estimate the regressions. Firms scoring at the bottom (Short Portfolio) and top (Long Portfolio) quartiles of the signal are included in the portfolios. The regressions are estimated from January 2011 to December 2019. ***, **, and * on difference in alphas indicate two-tailed p-value less than 1, 5, and 10%, respectively.

	(1)	(2)		(3)	(4)		
	Low ESG & Low Satisfaction	High ESG & High Satisfaction		Low ESG & Low Satisfaction	High ESG & High Satisfaction		
	Equal-Weighted			Value-Weighted			
	Annualized Alpha	Annualized Alpha	Difference	Annualized Alpha	Annualized Alpha	Difference	
Sub ESG Categories & Glassdoor's Overall Ratings							
Environmental	2.12%	3.61%	1.49%	1.89%	3.65%	1.76%	
Social	-1.12%	2.84%	3.96%	* -1.26%	2.78%	4.04%	**
Governance	1.30%	2.78%	1.47%	0.83%	2.77%	1.94%	
Sub Employee Ratings & MSCI ESG Score							
Career opportunities	-1.18%	3.93%	5.11%	** -1.55%	3.74%	5.29%	**
Compensation	-0.45%	3.15%	3.60%	-0.53%	3.06%	3.59%	
Senior leadership	-1.60%	4.29%	5.90%	** -1.82%	4.17%	5.99%	***
Work life balance	-3.51%	6.04%	9.55%	*** -3.74%	5.76%	9.51%	***
Culture values	-1.60%	3.53%	5.13%	** -1.84%	3.36%	5.20%	***
Alternative Portfolio Cut							
Tercile	0.07%	2.52%	2.45%	** -0.32%	2.32%	2.65%	**
Quintile	-0.54%	5.08%	5.62%	* -0.92%	4.99%	5.92%	**
Sub period							
2011-2014	3.44%	3.79%	0.35%	3.14%	3.63%	0.48%	
2015-2018	-2.21%	3.23%	5.44%	** -2.83%	2.94%	5.76%	**
Alternative Factor Models Using Quartile Cut							
3-factor alpha	0.73%	4.11%	3.38%	** 0.29%	3.94%	3.64%	***
4-factor alpha	1.50%	5.06%	3.55%	*** 1.01%	4.83%	3.82%	***

Table 6: Firm-Level Panel Regression

Dependent variable is the monthly stock return for each firm measured as in the calendar-time portfolios for every month beginning in January to December of t+1. High ESG& High Satisfaction (Low ESG& Low Satisfaction) indicates firms scoring at the top (bottom) quartile of ESG and employee satisfaction ratings. The following controls are defined as in Edmans (2011). Ret 2-3, Ret 4-6, Ret 7-12 are the logs of the compounded returns in month t-3 to t-2, month t-6 to t-4, and month t-12 to t-7, respectively. PRC is the price at the end of month t-2. DVOL is the dollar trading volume (in millions) in month t-2. Remaining controls are additional firm level controls. Size is the natural log of market capitalization. MTB is market value at the end of the calendar year over book value of equity. ROE is defined as net income over average shareholder equity. SG&A/Sales is selling, general, and administrative expense over sales. Adv Exp/Sales is advertising expense over sales. R&D/Sales is R&D expense over sales. Capex/PPE is capital expenditure divided by property plant and equipment. Standard errors are robust and clustered at the firm-level.

	(1)		(2)	
	Estimate	t	Estimate	t
High ESG & High Satisfaction	0.0040	3.71	0.0038	3.55
Low ESG & Low Satisfaction	0.0004	0.21	0.0003	0.17
Ret 2-3	-0.0012	-0.47	-0.0015	-0.56
Ret 4-6	-0.0004	-0.18	-0.0006	-0.31
Ret 7-12	-0.0045	-3.49	-0.0048	-3.68
PRC	0.0001	0.26	-0.0002	-0.46
DVOL	0.0000	0.97	0.0000	0.85
MTB	0.0000	0.67	0.0000	0.78
Size	-0.0002	-0.62	-0.0002	-0.73
ROE			0.0023	4.42
SG&A/Sales			0.0001	1.13
Adv Exp/Sales			0.0168	1.83
R&D/Sales			-0.0004	-2.53
Capex/PPE			0.0029	1.04
N	187,878		187,878	
Annualized Alpha	4.41%		4.28%	

Table 7: Future Accounting Performance

This table reports the accounting metrics of the year of portfolio formation and future years. Sales is defined as total sales during the year. ROE is defined as net income over average shareholder equity. $t=x$ to $t=y$ represents a change between year x and year y . High ESG& High Satisfaction (Low ESG& Low Satisfaction) indicates firms scoring at the top (bottom) quartile of ESG and employee satisfaction ratings.

Panel A: Sales

	Sales				
	t=0 to t=1	t=0 to t=2	t=0 to t=3	t=0 to t=4	t=0 to t=5
Low ESG & Low Satisfaction	5.38%	10.53%	19.05%	24.83%	35.26%
High ESG & High Satisfaction	6.50%	13.44%	23.16%	29.64%	38.36%
Difference	1.12%	2.92%	4.11%	4.81%	3.10%
t-stat	1.32	2.23	2.02	2.15	1.01

Panel B: Profitability

	ROE				
	t=0 to t=1	t=0 to t=2	t=0 to t=3	t=0 to t=4	t=0 to t=5
Low ESG & Low Satisfaction	-5.30%	-6.95%	-5.56%	-6.87%	-1.23%
High ESG & High Satisfaction	-2.42%	-2.13%	1.04%	3.77%	9.51%
Difference	2.89%	4.82%	6.60%	10.64%	10.74%
t-stat	0.90	1.17	1.49	2.25	1.99