EMPLOYEE SATISFACTION AND FINANCIAL PERFORMANCE: INVESTING IN YOUR EMPLOYEES TO CREATE VALUE

Abstract

This study analyses a sample of publicly listed Spanish companies to examine the relationship between employee satisfaction dimensions and financial performance.

Our work follows the work of Khan et al. (2016) on the importance of 'materiality' to measure positive results from ESG factors. We analyse the different dimensions used to build employee satisfaction and its relationship with financial performance replicating the analysis by Edmans (2011) for the Spanish case to determine whether there is an alpha-generating strategy in a selected portfolio of Spanish public companies who are strong on selected employee satisfaction dimensions. The analysis relies on the most well-known benchmark in Spain with data published over 16 years in the 'Actualidad Economica' weekly magazine and since 2018 in the 'El Mundo' newspaper. While not all dimensions are statistically significant, employee's opinion and their sense of belonging earn monthly four-factor alpha of 0.82% (10.3% annually) from 2007 to 2022 in Spain, reinforcing the importance of purpose for organizations. These results suggest that investors do not fully consider the intangible value of employee satisfaction in their corporate valuations, thus allowing for market arbitrage.

Keywords:

Corporate Social Performance, Employee satisfaction, Financial performance, Purpose, Sustainable investing.

Synopsis

Purpose

Recent years have witnessed profound transformations in business operations, rendering the attainment of sustainable competitive advantage increasingly challenging. In the era of advanced technology, artificial intelligence, and Industry 4.0, stakeholders' roles have gained unprecedented significance. Consequently, fostering a productive workforce that generates value for the company has become a critical strategic asset.

The purpose of this study is to evaluate whether having satisfied employees contributes to value creation and to identify the specific dimensions of employee satisfaction that drive this added value. By replicating Edmans' (2011) study on overall employee satisfaction in the US, we will utilize the most well-known benchmark in Spain. This benchmark comprises data published over 16 years in the 'Actualidad Económica' weekly magazine and, since 2018, in the 'El Mundo' newspaper. We aim to determine whether there is a hidden alpha by applying the four-factor Carhart model to companies that score highest on each of the six employee satisfaction dimensions defined in the survey: Compensation, Corporate Social Responsibility (CSR), Sense of belonging, Talent Management (TM), Training, and Work environment.

Problem of practice

Since the 1970s, academics have investigated the relationship between Environmental, Social, and Governance (ESG) factors and financial performance, resulting in extensive literature. However, despite the relevance of this topic, the findings remain inconclusive. Recent research shows a positive relationship between material ESG issues and financial performance, similar to materiality assessments in financial accounting, which consider both quantitative and qualitative factors.

Despite progress in sustainability disclosures, no organization provides materiality guidance through a standard-setting process. The Sustainable Accounting Standards Board (SASB), now part of the International Standard Sustainability Board (ISSB) under the IFRS Foundation, attempts to fill this gap by identifying material ESG issues for 77 industries.

Within the social aspect of ESG analysis, we examine how companies treat their stakeholders, particularly employees, and how this relates to value creation. Our work supports the Enlightened Shareholder Value (ESV) concept, which posits that prioritizing diverse stakeholder interests can lead to sustainable and robust financial performance, enhancing long-term shareholder value.

Results

We analyzed over 50 Ordinary Least Squares (OLS) regressions on Actualidad Economica survey data and found that motivator factors (Sense of belonging, Training and TM) are clearly associated with abnormal results, while hygiene factors (Compensation and Work environment) do not significantly impact long-term financial performance. Compensation and Work environment are necessary but not differentiating factors in financial success. Our results remain robust after winsorisation, weighting methodologies, elimination of small caps and lowest score regression portfolios. Among motivators, the sense of belonging provides a robust alpha, with abnormal results over 10% annually.

Conclusions

Categories defined as motivators by Herzberg (1968) yield higher and more statistically significant abnormal results than those based on overall employee satisfaction, including hygiene factors, aligning with Khan et al. (2016) on ESG materiality.

The portfolio based on Sense of belonging scores from employee feedback shows a 10.3% yearly abnormal return with a robust p-value of less than 1%. This highlights the significant impact of employee opinions over company statements. Employees who feel a strong sense of belonging are more productive, innovative, and confident, which translates to better financial performance. Companies like Glassdoor and Gowork, which gather employee reviews, can leverage AI to uncover hidden value in firms by analyzing these sentiments. This sense of belonging fosters a positive work environment where employees are motivated and committed to the company's success.

TM, despite being under-researched, shows significant potential for value creation, providing preliminary empirical evidence on its relevance. Effective TM practices enhance organizational outcomes by aligning highly competent individuals with strategically designed roles.

The CSR portfolio also exhibits a statistically significant alpha, underscoring the positive impact of employee engagement and shared values. However, Boards should reconsider their focus on ESG ratings, as many studies show no alpha from ESG lists, explaining why some leaders view ESG as a cost rather than a value-driven strategy.

Compensation shows insignificant alpha, possibly due to increased costs negating positive outcomes. Further research is needed to understand compensation's multidimensional implications. Lastly, the work environment shows no direct relationship with abnormal results, with limitations including not dividing different work environment measures.

Practical Relevance

This study contributes to ESG literature by providing a practical criterion for investment decision-making that considers employee satisfaction and its components. It identifies a path for Boards and Management Teams to increase shareholder value through employee satisfaction measures. We address whether investing in employee satisfaction in Spain is worthwhile and which specific social dimensions result in positive abnormal returns for investors and managers to focus on.

Motivators such as sense of belonging, TM, and Training show a clear association with abnormal returns, while hygiene factors like compensation and work environment do not significantly influence long-term financial performance, suggesting which measures should Boards and Management focus their attention and efforts.

Introduction

Since the 1970s, academics have investigated the relationship between Environmental, Social and Governance (ESG) factors and financial performance, leading to multiple studies and extensive literature. The most representative reviews have been developed in two recent meta-analyses by (Friede et al., 2015) and (Whelan et al., 2021). The former analyses more than 2,000 studies, and the latter concentrates on papers that cover the five-year period of 2015-2020, with an initial sample of 2,714 academic papers. However, the large number of studies related to ESG and financial performance demonstrates that whilst the topic is highly relevant, the literature does not deliver conclusive results.

One of the main challenges is the inconsistent terminology used to define ESG, SRI and Corporate Social Performance (CSP). Meuer et al. (2020) identified thirty-three definitions of corporate sustainability. SRI has two accepted acronyms: 'Socially Responsible Investing' and 'Sustainable, Responsible, and Impact investing', and different meanings have different results. A similar problem occurs when defining financial performance. It can be accounting-based, and a myriad of ratios and metrics can be used, or it can be market-based, which accounts for expected future performance and external impacts, making it difficult to distinguish, measure, or isolate any single effect on its current market performance.

Regarding market performance, an additional dilemma arises concerning whether socially responsible stock prices trade at a premium due to a lower assigned cost of capital because of (i) the exclusionary effect of ethical investing (Heinkel et al., 2001), (ii) their lower risk of being stranded, and (iii) investors' preference for virtuous firms, positioning themselves long on those firms (Fama, 2021). If this is true, then future returns in the short and medium term would be lower than those of their non-socially responsible peers.

A review of recent research provides more robust evidence of a positive relationship between material ESG issues and financial performance Whelan et al., (2021); Consolandi et al. (2022); and Khan et al. (2016) stress the importance of using data that are material for a specific industry as the key to better performance. This is no different from what we would do in financial accounting, where materiality is assessed based on both quantitative and qualitative factors. In their research, the authors express that the progress in data availability and quality, and the new knowledge being acquired about what specific ESG measures create value, defined by their materiality and relevance for each industry, strengthens the link between sustainability and financial performance. They also find that companies that focus on immaterial ESG issues have a negative financial performance correlation.

Most studies were based on data on ESG indicators (Bloomberg, Reuters, Fitch, Refinitiv, or Clarity) that rely heavily on corporate governance, that is, the disclosure and measures announced by the companies regarding ESG (the 'how' companies do their operations), without considering the different weight or relevance each environmental or social performance metric has on each particular business or industry. Khan et al. (2016) shows that the vast majority of ESG data for any given industry are immaterial to financial performance.

Previous studies did not consider the differing importance of sustainability issues across industries. Whilst considerable progress has been made in the past twenty-five years in sustainability disclosures by firms driven by organisations such as the Global Reporting Initiative (GRI) or the European Taxonomy, no organisation provides materiality guidance through a standard-setting process. The Sustainable Accounting Standard Board (SASB), recently integrated into the International Standard Sustainability Board (ISSB) under the International Financial Reporting Standards (IFRS) Foundation, was the first to attempt to fill this gap and identify material ESG issues for all 77 industries within its classification system (Eccles & Klimenko. S., 2019). When we look at studies that try to go one step ahead and separate material issues within ESG performance (Khan et al., 2016), we find a strong correlation between financial performance and material ESG investments and disclosures, as defined by the SASB.

Within the social aspect of ESG analysis, we analyse i) how a given company treats its stakeholders, particularly its employees and ii) how the former relates to value creation. Over the past 20 years, this area saw extensive research, however, the lack of quality data remains a challenge (Henderson & Van Den Steen, 2015; Hollensbe et al., 2014).

Our work contributes to the concept of Enlightened Shareholder Value (ESV), which became popular during the 1980s and was first introduced by the UK government in 2006 as part of the Companies Act as a movement to promote responsible corporate behaviour and balance the interests of various stakeholders whilst maintaining a focus on shareholder value. This perspective emphasises that by prioritising the interests of a diverse array of stakeholders, including employees, a company can achieve sustainable and robust financial performance and thus long-term shareholder value (Mayer, 2021a).

Our first hypothesis is that companies with greater employee satisfaction have a hidden alpha but not all social dimensions that constitute employee satisfaction have the same impact on the abnormal results. Those considered as motivators have a higher impact than the hygiene factors, as proposed by Herzberg (1968)‘s theory.

Our second hypothesis is that relative to the stated company values that have a limited impact (Guiso et al., 2015), employees’ beliefs and their sense of belonging will have the highest abnormal results of all categories, in line with Gartenberg et al. (2019).

Literature Review

Employee satisfaction has been a significant topic for several decades, with numerous studies exploring its contributing factors. One of the foundational studies was conducted by Herzberg (1968), who introduced a two-factor theory, identifying hygiene and motivation factors. Hygiene factors, essential for preventing dissatisfaction, include aspects like salary, reasonable working hours, and safe working conditions. These factors do not directly influence satisfaction but are crucial in the job environment. Conversely, motivators lead to job satisfaction and include opportunities for professional growth, challenging work, responsibility, achievement, the work itself, and recognition of good performance. However, the absence of motivators does not necessarily cause dissatisfaction.

In the AE survey, six dimensions were categorized into motivators and hygiene factors:

Hygiene factors:

- Compensation and benefits (salary)
- Work environment (interpersonal relations and working conditions)

Motivators:

- Talent Management (possibility of growth and recognition)
- Training (advancement)
- Sense of belonging (Employee's opinion)

The CSR factor, which could be associated with pride in the organization, is not easily categorized as it depends on employees' values and their perception of the company's CSR activities. It reflects the company's communication efforts rather than having a clear impact as a hygiene factor or motivator.

Various studies have measured employee satisfaction using different dimensions. For example, Fosam et al. (1998) analyzed police organizations, Chen et al. (2006) focused on higher education, and others, all based on Herzberg's framework, resulting in job dimensions similar to those used by AE's experts. These dimensions can be established as motivators or hygiene factors.

To understand the relationship between different employee satisfaction factors and abnormal results, we will examine those chosen by AE survey experts as the most relevant from 2007 to 2020: sense of belonging (employee opinion), CSR, compensation and benefits, work environment, talent management, and training. The AE list in 2021 merged the sense of belonging factor within the other five dimensions, assuming that the overall result would reflect this factor.

We will briefly analyze the main conclusions from the literature for each of these dimensions.

Sense of belonging

According to "Organizations with Purpose" by Hollensbe et al. (2014), recognizing the interdependence of business and society is crucial. Employees are influenced by their work environments and business culture, so leaders must align the business's purpose with employees' values to foster pride and belonging. From 1995 to 2016, the term "purpose" has seen a five-fold increase (EY, 2016), despite the limited empirical progress on purpose in strategic management (Hollensbe et al., 2014; Henderson & Van Den Steen, 2015).

Gartenberg et al. (2019) attribute the slow progress to a lack of measurement technology and a clear definition of purpose. They addressed this by using worker perceptions of their employers and pride in their organizations, as seen in the AE survey. Many companies now claim to be purposeful, aiming to go "beyond profit." Yet, proclaimed values often seem irrelevant unless employees view top management as trustworthy and ethical, which strengthens firm performance (Guiso et al., 2015). Thus, the AE survey focused on employees' perceptions rather than company statements.

CSR

In the early 2000s, an anti-globalization movement, shareholder activism, and corporate governance reform emerged. In response to growing animosity, fueled by accounting scandals, major companies promoted themselves as socially responsible (Maignan & Ferrell, 2004). For example, Nike advertised its commitment to responsible business practices, and Coca-Cola increased transparency by expensing stock options to top management. This highlighted the importance of CSR initiatives to Boards and shareholders. Consequently, CSR investments and reports increased significantly, with numerous academic papers exploring the topic across various disciplines (Malik, 2015).

Studies on the relationship between CSR and financial performance often yield contradictory results. Griffin & Mahon (1997) noted the inconsistency due to differing definitions of social and financial performance. Martin & Moser (2012a; 2012b; 2016) found that some CSR activities could destroy shareholder value, with disclosures focusing on social benefits rather than net costs.

Surveys measuring CSR often face low return rates and inconsistencies (Malik, 2015). Miguel & Salmerón (2016) examined the Spanish market, finding a low correlation between high CSR levels and financial performance from an accounting perspective (ROA and EBITDA margin), though sector-specific correlations were noted. The results show that although there is a correlation when considered from a sectorial point of view, the significance of the results is low[1].

Compensation and benefits

Employee compensation is a key aspect of HR management, crucial for attracting and retaining skilled employees (Shaw, 2014). It also influences productivity, efficiency, and overall competitiveness (Bloom, Reenen, et al., 2011). Most research has focused on CEO compensation due to regulatory transparency requirements (Leonard, 1990).

Studies show mixed results on the relationship between compensation and financial performance. Paying above-market wages can lead to higher productivity and financial performance (Lazear, 2000). Companies investing in employee compensation often see lower turnover and better financial performance (Pfeffer, 1998). However, some studies found no

[1] Of the firms analysed, 43.96% have an above-average level of CSR (4,795 points), according to a sample of 91 companies, while 41.76% of them have an above-sample ROA (5.64%). A total of 17 companies, 18.68% of the total, have both above-average indicators, while 25.27% have a lower-than-average CSR level and ROA. In terms of EBITDA/sales, 29.63% have it above average, 40.74% have above-average CSR levels and only 13.58% have both above-average variables.

significant relationship (Gerhart et al., 2008) or even negative impacts from high executive compensation (Balsam, 2002).

The relationship depends on various factors like industry and firm size. Companies with a strong sense of purpose may have high employee satisfaction even with lower wages, benefiting shareholders (Henderson & Van Den Steen, 2015). Employees with a personal calling may accept lower pay for job satisfaction, risking exploitation (Bunderson & Thompson, 2009).

In conclusion and based on resource-based theory, the amount of value creation (through the right incentives) and how it is captured by employees or shareholders will determine whether there is a positive, neutral, or negative relationship between compensation and financial performance (Bowman & Ambrosini, 2000).

Work environment

The exploration of working conditions began in the late 19th and early 20th centuries, focusing on the physical work environment's effects on health, safety, and productivity. Early pioneers like Frederick Winslow Taylor aimed to enhance workplace efficiency through systematic analysis of work processes, leading to modern management practices (Taylor, 1911).

Elton Mayo's Hawthorne Studies in the late 1920s and early 1930s highlighted the importance of social and psychological aspects in the workplace, laying the foundation for the human relations movement (Mayo, 1933). Abraham Maslow's hierarchy of needs, presented in his 1943 paper, suggested a specific order for fulfilling employee needs, influencing approaches to motivation and workplace design (Maslow, 1943).

Gartenberg et al. (2019) categorized purpose into purpose-clarity and purpose-camaraderie. High purpose-clarity organizations, with well-defined goals and clear communication, show superior financial performance. In contrast, high purpose-camaraderie organizations, emphasizing a fun, team-oriented atmosphere, do not exhibit the same financial benefits.

Overall, early research significantly shaped our understanding of working conditions, influencing current organizational management and work environment design.

Talent Management

Since the late 1990s, there has been a significant rise in academic interest in talent management (TM) due to the "war for talent" concept, the strategic importance of human capital, and global business dynamics (Lewis & Heckman, 2006). McKinsey consultants Michaels, Handfield-Jones, and Axelrod coined the term "war for talent" in 1998, highlighting the competition to attract, develop, and retain top talent in a rapidly changing business landscape (Michaels et al., 2001). This shift necessitated a strategic approach to TM beyond traditional HR practices.

Research on TM has expanded, covering talent acquisition, development, and retention. Lewis & Heckman (2006) reviewed the definitional issues and lack of data in TM, while Collings & Mellahi (2009) provided a comprehensive review of TM literature, noting its significant growth. Thunnissen (2016) empirically explored TM practices, aiming to deepen understanding of their implementation. Gallardo-Gallardo et al. (2013) reviewed the literature to clarify the meaning of "talent," contributing to the scholarly debate on TM's role in organizational success.

Effective TM practices are crucial in today's complex business environment for achieving competitive advantage (Pfeffer, 1994). These practices enhance human resource quality, driving innovation, efficiency, and financial performance (Sparrow & Makram, 2015).

Training

Gary Becker (1964) argued that company-paid training is an investment similar to capital costs, benefiting both employees and companies through improved skills and increased salaries. Despite extensive research, the organizational impact of training remains unclear, often studied at the individual level without considering broader effects (Glaveli & Karassavidou, 2011).

Tharenou et al. (2007) analyzed 67 studies, finding that training positively affects human resource outcomes and organizational performance but shows a weak link to financial outcomes. Glaveli & Karassavidou (2011) found that formal, structured, long-term training enhances job satisfaction and employee loyalty.

Bernstein & Beeferman (2015) reviewed 36 studies on training and investment outcomes, with 22 showing positive correlations, one negative, and the rest mixed or no correlations. Training costs, both direct (courses, materials) and indirect (lost hours), often don't yield full benefits as skills may be transferable to other companies, complicating cost-benefit analysis.

Despite these complexities, the expertise and abilities of a company's workforce are crucial for performance, competitiveness, and innovation. Ongoing training is essential for maintaining a competitive edge (Tharenou et al., 2007).

Research Method

Using market-based data vs accounting-based

In this study, we use market-based data and long-run stock returns for three key reasons: (a) They suffer fewer reverse causality issues than accounting-based data. Employees may be more satisfied in successful companies, but this doesn't mean high performance guarantees superior future returns, as profits are already reflected in market prices. (b) Market-based data better capture intangibles and risk perceptions affecting shareholder value, which accounting data may miss, such as new products or contracts derived from higher satisfaction. (c) The market often undervalues intangibles like governance, customer satisfaction, environmental efficiency, and high R&D and advertising expenditures, leading to higher long-term returns.

Data and research design: the survey throughout the years

We constructed our data sample of companies and their surveyed levels of workplace satisfaction from the AE annual survey, published since 1998. Although published yearly (except for 2000), this study focuses on data from 2007 onwards. AE is a longstanding Spanish economic news and financial information magazine, established in 1958. According to AIMC[2] data via the EGM[3] survey[4], AE had about 80,000 readers per week until 2010, when it switched to a monthly format, boosting readership to about 700,000 when it became

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[2] Asociación para la Investigación de Medios de Comunicación (AIMC)
[3] Estudio General de Medios (EGM) is a survey conducted three times per year on the number of readers, listeners, and viewers of media in Spain.
[4] Data on the number of readers can be found in AICM website:
https://reporting.aimc.es/index.html#/main/diarios
(Accessed on February 26th 2023)

part of the ‘El Mundo’ newspaper in March 2018. AE is a recognized benchmark in Spain due to its long-standing presence and physical publication format.

In 2007, AE stabilized the categories analyzed for employee satisfaction into six areas: sense of belonging, CSR, compensation, work environment, talent management (TM), and training, with results published by dimension. The AE survey rules require candidates to prove commercial activity in Spain for at least five years and have a workforce of more than 100 employees, excluding small companies and less significant subsidiaries of foreign firms. This establishment of definitive categories in 2007 ensured continuity and maturity in the survey, making data from prior years less comparable and accurate. To determine which of the six dimensions has a meaningful and robust alpha, we created a portfolio for each dimension with companies scoring in the top 50% for that dimension from 2007-2021.

The last list used is from September 2021, providing a full year of stock return data, completing our study in September 2022, when the next list was issued.

From raw to processed data

To execute our model, we implemented two essential filters to refine our dataset from 2006 to 2022. First, we excluded privately-held companies due to the unavailability of market data. Detecting potential alpha requires comparing a company’s financial performance with market performance, necessitating accessible stock performance data. We manually designated each company as ‘traded’ or ‘non-traded,’ including only those publicly traded during their recognition in AE’s rankings.

Next, we excluded companies not listed on the Spanish Stock Exchange to ensure the data reflects the parent company's performance and is accessible to Spanish investors. This filter eliminates between 40% and 60% of the list annually, retaining companies with significant operations in Spain and listed on the Spanish stock market, thus preventing distortion from including foreign subsidiaries.

A limitation is that AE published all survey respondents up to 2012. For 2006-2012, we used the top 50% of the list, and from 2013 onwards, we used the top 100 companies. We also tested the top third in our OLS regression, yielding similar results. We believe there is a positive bias among companies responding to the survey due to reputational risk and the effort required to participate. This positive bias increases the accuracy of the list by likely excluding firms with low satisfaction scores.

Financial data

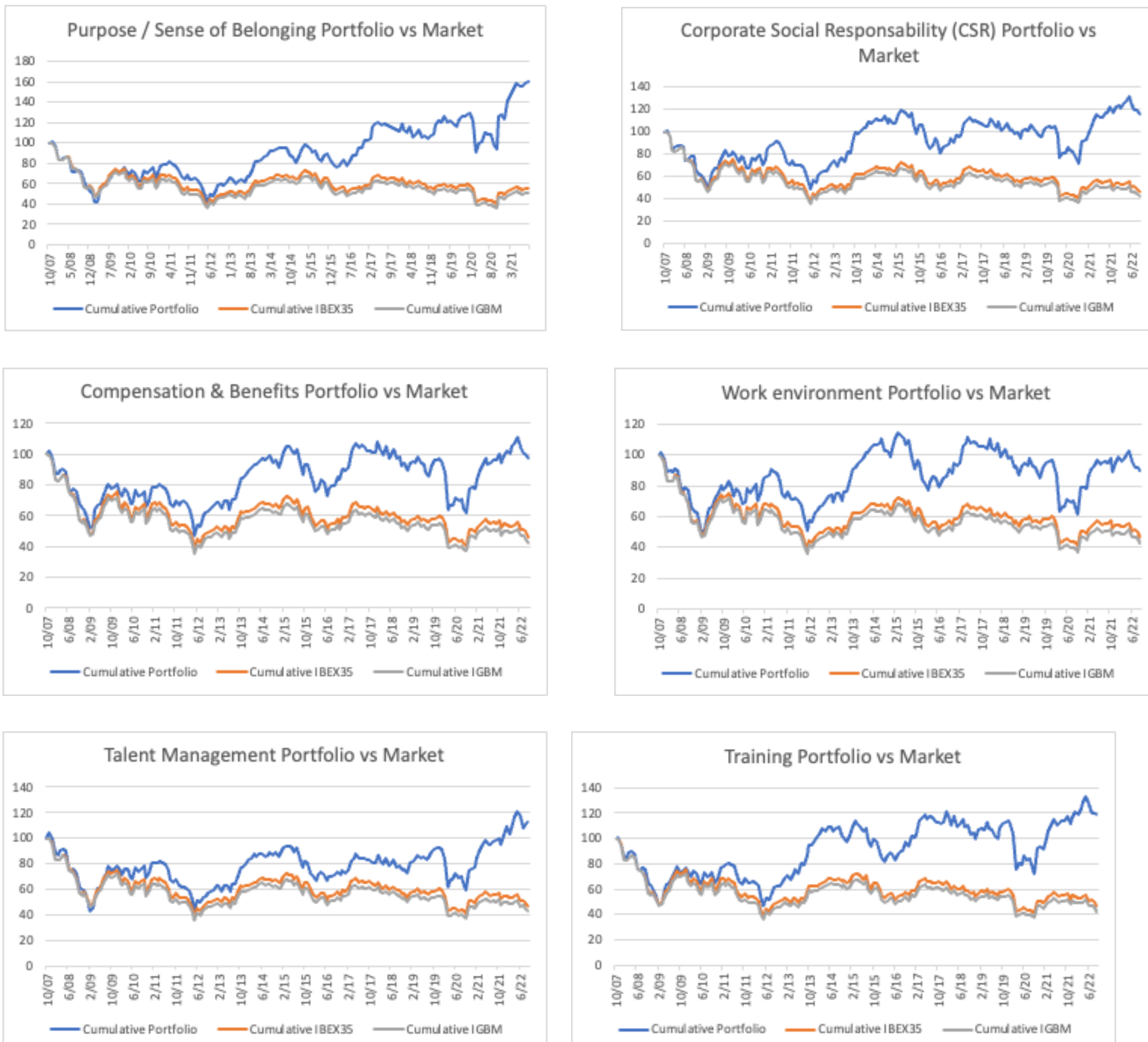
Both the risk-free rate and stock performance data for our portfolio companies were obtained from FactSet, including monthly variations in total return (stock price and dividends) measured by the closing value of each month's last business day.

After retrieving financial data from FactSet and applying our filters, we compiled 15 years of data (2007-2021) from 61 Spanish public firms identified as 'outstanding places to work.' This number is lower than in similar ESG studies, potentially impacting the significance of our results. For instance, the number of corporations analyzed are 244 in Edmans (2011). Despite this, our portfolio consistently maintained over ten companies per year, accounting for 2,675 firm/month-year observations.

For each year, the number of companies in our portfolio with a 50% cut-off remained over five. We track the survey's annual publication (June-September) and use the first day of the following month to form our BC portfolio from 2007 to 2022. We measured the number of companies added or dropped to ensure rotation, finding that 27% of firms were new additions annually, similar to Edmans' 2011 US study. Similarly, 28% of firms were removed each year due to changes in management or HR policies.

Figure 1 shows portfolio performance for each dimension against the market for the entire period from 2007 to 2022. Clearly, all the portfolios outperform the market.

Figure 1: Cumulative returns of employee satisfaction dimensions against market returns



Note: The Figure shows the cumulated return of the equally weighted portfolios of the BCs employee satisfaction dimensions vs the market. The orange line represents the cumulative return for the IBEX35. The grey line represents the cumulative return for the "Indice General de la Bolsa de Madrid" (Madrid General Index), an index that contains 122 companies and is representative of the whole Spanish stock market, while the IBEX35 focuses on the 35 largest companies. The blue line represents the BC equally weighted portfolio for the dimension stated in the title of the graph.

Building the model

On October 1, 2007, we formed a portfolio for each dimension by applying a 50% cut-off and filtering for publicly listed companies on the Spanish stock exchange. We measured returns from October 2007 to June 2008, constructing both equal- and value-weighted portfolios, as Fama & French (2008) find anomalies in different weighting methodologies. The portfolio was reformed on July 1, 2008, and subsequently each year until September 2022.

Stock returns and market capitalization data were obtained from FactSet, adjusting for companies excluded from public trading due to takeovers, liquidation, or shareholder decisions. This occurred three times, constituting less than 1% of total returns data. To confirm the potential abnormality of the results from our portfolios, we employed factor regressions with an asset pricing model, as developed by Fama and French (1993, 1995, 2008, 2012).

We estimated the relationship between each dimension and performance using an OLS regression model. To ensure any outperformance was not due to risk, we controlled for the four Carhart (1997) factors: market performance, market size, book-to-market ratio, and momentum. Factors were extracted from Kenneth French's data library at the European level.

The model equation is:

$$R_{it} - RF = \alpha + \beta_1 \times MKT\text{-}RF_{it} + \beta_2 \times HML_{it} + \beta_3 \times SMB_{it} + \beta_4 \times MOM_{it} + \varepsilon_{it} ,$$

Where R_{it} - RF is the excess return on portfolio i over the risk-free rate, \alpha captures the abnormal risk-adjusted return, and β_1, β_2, β_3, β_4 are estimated using linear regression with corrected standard errors.

We used the monthly US Treasury bill as the risk-free rate, consistent with international asset pricing literature (Fama & French, 2012; Griffin, 2002), despite the acknowledged exchange risk.

We benchmarked our portfolio monthly, using a 1-month treasury bill to match our period. To ensure European data from Kenneth French's site was suitable, we ran our model with IBEX 35 and IGBM indices.

Our results show that the α is insignificant even at the 10% significance level. The lack of alpha and the Adjusted R-squared value of 77% indicates that the Carhart (1997) four-factor model effectively explains the variation in the IBEX 35 and IGBM's returns. Therefore, we can conclude that we can use Fama French data at the European level with our set of Spanish companies as it adequately explains the Spanish market's financial performance.

Given the core issue of this study, all the robustness checks focus on portfolio alphas as a measure of abnormal performance.

Findings

We created a different portfolio for each dimension and ran the regression model to understand which dimensions provided abnormal results. To run our model, we separated each annual survey into two groups: the top 50% and bottom 50% in terms of score. To check the robustness of the results, we also ran a regression on the top third-grade companies by each dimension (cut-off at 33%).

Our intention is to understand which of the dimensions provide abnormal results with an alpha that is at least as robust as that in the OLS for our first portfolio.

We compiled the results of the OLS regressions for all six dimensions, both with cut-offs of 50% and 33 %, as shown in Table 1. There were no significant differences between the two cut-off values. Nevertheless, we believe that the results at the 33% cut-off level might not be as accurate, as the number of companies is significantly reduced, as seen in our Research Method section.

Table 1: OLS Regression results for employee satisfaction dimensions

Portfolio	Equally weighted					
	Alpha	MKT-Rf	SMB	HML	MOM	Adj. R^2
Sense of Belong. top 50%	0,82***	0,64***	-0,23	0,9***	-0,33***	74%
Sense of Belong. top 33%	0,67**	0,6***	-0,24	0,86***	-0,32***	71%
CSR top 50%	0,45**	0,64***	-0,36**	0,78***	-0,21***	75%
CSR top 33%	0,43*	0,64***	-0,36**	0,83***	-0,18**	75%
Comp. & Bfts top 50%	0,36	0,61***	-0,36*	0,81***	-0,21***	75%
Comp. & Bfts top 33%	0,29	0,64***	-0,41**	0,75***	-0,22***	74%
Work env. Top 50%	0,32	0,65***	-0,39**	0,80***	-0,2***	77%
Work env. Top 33%	0,21	0,71***	-0,37*	0,86***	-0,20**	77%
Talent Mgmt top 50%	0,48**	0,64***	-0,45**	0,83***	-0,23***	75%
Talent Mgmt top 33%	0,45*	0,68***	-0,47**	0,76***	-0,23**	70%
Training top 50%	0,45**	0,63***	-0,24	0,87***	-0,19**	76%
Training top 33%	0,44**	0,6***	-0,35*	0,79***	-0,3***	72%

** Significant at the 10% level*

*** Significant at the 5% level*

**** Significant at the 1% level*

*Note: The table presents the results of the Carhart (1997) four-factor model over the portfolios on each dimension, from October 2007 to September 2022 on a monthly basis (except for the Sense of belonging portfolio which finishes in August 2021). The portfolio top 50% (33%) consists of applying a cut-off of the 50% (33%) best performing companies in terms of their score in the AE survey for that particular dimension. The regressions are run individually for each characteristic score and portfolio type using the full available data. Portfolios contain equalweighted returns. The factors are MKT (market excess return over the risk-free return); Fama & French (1993) SMB (small minus big) and HML (high minus low) and Carhart (1997) MOM (winners minus losers). The alpha is the excess risk-adjusted return. Adjusted R^2 are also reported. The t-statistics in parentheses are based on Newey and West (1987) standard errors. The asterisks *, **, and *** indicate a statistical significance at the 10%, 5% and 1% levels, respectively.*

The portfolio based on sense of belonging scores provides the highest alpha, with abnormal annual returns of 10.3% (14% if value-weighted), and a p-value under 1%, indicating robust results. This aligns with Gartenberg et al. (2019) on the importance of pride in the organization for value creation. This portfolio shows no size effect influence and is defensive, with a positive skew of 0.53, protecting investors when the market falls.

The score is based on employee feedback, not official company statements, with questions like “Value the integrity and consistency with which the communication is managed” and “Value the feeling of pride and belonging of professionals towards this company.” These results are consistent with Guiso et al. (2015), who found that proclaimed values are irrelevant to firm performance, and employees’ opinions are crucial.

Research by Leape et al. (2020) shows that employees in purpose-driven organizations exhibit higher engagement, providing competitive advantage. Identifying with the company allows for lower wages while maintaining motivation (Achor et al., 2018) and enhances intrinsic motivation as belief in meaningful work drives creativity and resilience (Henderson, 2021).

The second-highest alpha was found in TM, with 5.9% abnormal annual returns (10% if value-weighted). This indicates that good policies for attracting, developing, and retaining talent enhance value, supporting TM literature.

CSR scores, measuring employee participation and investment in CSR activities, showed a 0.45% monthly abnormal return, slightly higher than the BC portfolio alpha (0.39%). Increased transparency and the existence of ESG indices have integrated CSR into company valuations, yet abnormal results still persist.

The training performance portfolio shows 5.5% annual abnormal returns, underscoring the importance of training. This aligns with findings on job satisfaction and employee loyalty (Glaveli & Karassavidou, 2011).

Portfolios based on compensation and work environment scores show insignificant alpha in equally weighted portfolios. However, significant alpha in value-weighted portfolios suggests caution, as three large companies account for 60% of returns. Compensation may be seen as an extrinsic motivator or hygiene factor (Herzberg, 1968), and higher expenses might offset productivity gains.

The work environment score also showed low statistical significance for abnormal results. This aligns with findings that strong camaraderie does not influence financial performance (Gartenberg et al., 2019). While essential, compensation and work environment do not differentiate financial performance once basic thresholds are met.

As a final robustness test, we want to understand if the lower-graded portfolios give any abnormal result, which would imply that there are other factors not taken into consideration that are distorting the results. In order to do so, we conducted an OLS regression analysis, considering only the bottom 50% of companies in each dimension. None of these portfolios, based on the bottom 50% of performers in each dimension, exhibit a robust alpha, indicating that none would have been expected to display superior financial performance. This analysis served as a robustness test that corroborated the validity of the scores assigned to each dimension.

In conclusion, we have run more than 50 different OLS from the data within the list published by AE, finding that motivators show a clear association with abnormal results, while hygiene factors do not significantly influence long-term financial performance. Compensation and work environment are necessary but not differentiating factors in financial success. Results for non-significant dimensions remain unchanged after winsorisation, confirming the robustness of our findings. Within motivators, sense of belonging provides a higher and robust alpha, with abnormal results over 10% each year, which probably explains why it is not a dimension that is easily replicated or that can be attained through financial means, but needs leadership (Gibbons et al., 2021), as advertised values have no effect (Guiso et al., 2015). As we have discussed in the study, the TM and training categories both have to do with the characteristics of the management and the culture of the Company, all pointing to the importance of leadership and the shaping of a long-lasting positive culture within the company that can set a sense of belonging on employees to achieve a higher financial performance in the long term. Discussion and Conclusion

This study analyzes publicly listed Spanish companies to examine the relationship between employee satisfaction dimensions and their impact on value creation. The findings show that categories defined as motivators by Herzberg (1968) yield higher and more statistically significant abnormal results compared to those based on overall employee satisfaction, including hygiene factors. This aligns with Khan et al. (2016), highlighting the importance of materiality in ESG metrics.

Identifying value-driving categories can guide Boards of Directors and Management Teams in investing in employee satisfaction to generate value for stakeholders. Our research suggests focusing on training, talent management (TM), fostering a sense of belonging, and promoting CSR activities among employees.

The portfolio based on sense of belonging scores from employee feedback shows a remarkable 10.3% yearly abnormal return with a robust p-value of less than 1%. This indicates the value of employee opinions over company statements. Companies like Glassdoor and Gowork, which gather employee reviews, can leverage AI to uncover hidden value in firms. Employees who believe in their work and feel at ease are more productive, innovative, and confident, enhancing the bottom line over time.

TM, despite being under-researched, shows significant potential for value creation. Our study provides preliminary empirical evidence on TM's relevance, opening avenues for future research to explore the relationship between TM and organizational outcomes, as called for by Gallardo-Gallardo et al. (2013).

The CSR portfolio also exhibits a statistically significant alpha, underscoring the positive impact of employee engagement and shared values on value creation. However, Boards should reconsider their focus on ESG ratings, as many studies indicate no alpha from ESG lists like the Dow Jones Sustainability Index (Porter et al., 2019). This may explain why some leaders view ESG as a cost rather than a value-driven strategy (Polman & Winston, 2022).

The first dimension showing insignificant alpha is compensation. This could be due to increased costs associated with higher compensation, which might negate positive outcomes. If higher compensation stems from a lack of training or a retention premium due to a mismatch in values, its benefits diminish. Further research is needed to understand the multidimensional implications of compensation.

Lastly, the work environment, despite being promoted by companies like Google, shows no direct relationship with abnormal results. Our study's limitations include not dividing different work environment measures, which future research could explore further.

In conclusion, motivators such as sense of belonging, TM, and CSR show a clear association with abnormal returns, while hygiene factors like compensation and work environment do not significantly influence long-term financial performance. These findings suggest that while essential, hygiene factors do not differentiate financial success once basic thresholds are met.

Limitations

Most empirical asset pricing studies uncovering hidden alpha are US-based, so caution is needed when applying these strategies internationally. Prudence is essential for strategies dependent on cultural environments and regulatory frameworks. The value of employee satisfaction, like TM or training in Spain, varies by context, affecting outcomes across countries.

Practitioners and some scholars often misrepresent ESG and SRI evidence, suggesting universally positive results. Research shows only specific ESG strategies focusing on materiality outperform. Employee satisfaction elements excelling in Spain may not do so elsewhere, emphasizing the risk of oversimplifying ESG evidence.

This study implies the need for nuanced, context-sensitive ESG research, as highlighted by Edmans (2023).

Future research

Our study leaves many questions unanswered and opens significant opportunities for future research. Is it possible to create a toxic work environment and sense of belonging? How do certain dimensions influence others? Understanding the interrelations between each category is as important as understanding their organisational-level outcomes in terms of performance, productivity, or market position.

Disaggregating the results of internal climate surveys to better comprehend employees' opinions at the multi-company level would enhance our understanding of the findings of our research. For example, what employee characteristics influence value creation the most? What primary actions or factors drive employee satisfaction and a sense of belonging within organisations?

Understanding the relationship between one incremental unit spent on employee satisfaction or any of its dimensions (i.e. creating a sense of belonging) and the return on that investment could be of great importance to help decision makers optimize value creation.

Finally, we believe that a revolutionary field is about to become a reality for researchers and managers through the use of AI and big data to classify, measure and comprehend employees' opinions more effectively. This approach does not rely on scales but rather on natural language processing, enabling comparisons between various companies across diverse locations and job levels.

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