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Does employee happiness create value for firm performance?

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This study examines the impact of employee happiness on firm performance in the UK using data from the *"Best 100 British Companies to Work For"* list (2001–2020). Applying the Carhart four-factor model to monthly data, we find that happier firms outperform the market, generating a monthly alpha of 32 basis points (3.86% annualized), which increases further to 34 basis points when weighted by ranking. Newly listed firms experience significant abnormal returns, whereas delisted firms show no excess returns, suggesting asymmetric market reactions to inclusion versus removal. Disaggregated analysis by industry shows the highest alpha in the technology sector, where human capital and innovation amplify the role of employee satisfaction. The industrial sector yields more modest alphas, likely reflecting capital intensity, more rigid work environments, and sectoral heterogeneity. A longevity analysis indicates that the market fully incorporates the intangible benefits of listing only after 36 months. Robustness checks using Fama-MacBeth regressions confirm that employee-related factors—such as workplace conditions, rewards, happiness, and demographics—significantly influence firm performance.

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Introduction

"When people are financially invested, they want a return. When people are emotionally invested, they want to contribute." – Simon Sinek

Employee happiness is not merely a workplace concern—it constitutes a strategic intangible asset that significantly influences firm performance and shareholder value. Firms with a satisfied and motivated workforce consistently outperform their peers, exhibiting superior stock returns, enhanced profitability, and greater long-term resilience (Edmans, 2011; Bellet et al., 2024). Despite growing empirical evidence, financial markets often fail to fully account for the value of employee well-being, resulting in persistent mispricing and abnormal returns. This inefficiency challenges the efficient market hypothesis (EMH) (Fama, 1970), which asserts that stock prices should fully reflect all available information.

Behavioral finance provides alternative explanations for this phenomenon. Investor biases may delay the recognition of human capital advantages, creating a prolonged market correction period. Prospect theory (Kahneman and Tversky, 1979) posits that investors tend to underreact to gradual, long-term value creation while overreacting to salient, short-term signals due to cognitive distortions such as loss aversion. Similarly, the risk-as-feelings hypothesis (Loewenstein et al., 2001) suggests that sentiment-driven judgments often override rational analysis: individuals in positive moods tend to make more optimistic financial decisions, whereas those in negative moods exhibit greater pessimism.

A growing body of literature links investor mood and sentiment to market performance (Frieder and Subrahmanyam, 2004; Edmans et al., 2007; Hong and Kacperczyk, 2009; Edmans, 2011; Bialkowski et al., 2012; Choi et al., 2016; Fang et al., 2021; Bellet et al., 2024; Basar, 2024). For instance, Hirshleifer and Shumway (2003) find that sunshine correlates with improved investor mood and higher stock returns. Frieder and Subrahmanyam (2004) observe significantly higher stock returns during Rosh HaShanah, a Jewish holiday linked to positive mood, and markedly lower returns during Yom Kippur, which is associated with a sombre reflection and negative mood. Similarly, Edmans et al. (2007) show that losses in international soccer tournaments negatively affect national sentiment in the losing country, leading to measurable declines in stock market performance. Bialkowski et al. (2012) report abnormally high returns in predominantly Muslim countries during Ramadan, a period characterized by elevated collective mood, communal bonding, and spiritual upliftment.

At the firm level, employee mood and satisfaction have been shown to directly influence individual productivity and aggregate organizational performance (Edmans, 2011; Bellet et al., 2024; Basar, 2024). Fang et al. (2021) argue that investments in employee well-being generate a self-reinforcing cycle: increased revenues support greater employee satisfaction, which in turn fosters loyalty and sustainable growth. However, the Easterlin paradox implies that the marginal utility of happiness declines as income rises (Easterlin, 2001; Kim, 2024), with Edmans (2011) estimating that this saturation point occurs after approximately 54 months in the U.S. stock market context.

Employee happiness constitutes an intangible asset that lacks direct visibility and is inherently difficult to measure. Unlike physical assets, it is absent from corporate balance sheets, often resulting in its undervaluation by the market and exclusion from stock price considerations (Peters and Taylor, 2017). Over the past two decades, organizations have attempted to capture this intangible value through employee surveys, proprietary analytics, and the publication of workplace rankings. Indices such as *"The Best American Companies to Work For"* have been widely employed in empirical studies evaluating the relationship between employee satisfaction and firm performance. Edmans (2011), for instance, finds that companies on the list earned an average monthly excess return of 29 basis points (3.5% annualized). Other studies report similar patterns, though with variations in timing and magnitude (Fulmer et al., 2003; Best, 2008). Fulmer et al. (2003) find that listed firms outperformed the market over the long term (1995–2000), while Fillbeck and Preece (2003) document excess returns limited to the first two years following inclusion. Best (2008) attributes this outperformance to compensation structures and benefit programs that enhance employee motivation and retention.

In addition to such rankings, alternative proxies for sentiment and organizational climate—such as holidays (Bialkowski et al., 2012), corporate culture (Ylinen and Ranta, 2023), psychological rewards (Sadiq et al., 2022), and mindfulness (Khan and Abbas, 2022)—have been linked to firm outcomes. Sociocultural diversity across dimensions such as gender, ethnicity, religion, and lifestyle has also been identified as a key driver of employee satisfaction and organizational effectiveness (Tan et al., 2019; Guest, 2019; Amin et al., 2022; Frijns et al., 2024; Wu et al., 2024; Adam and Alfawaz, 2025). Inclusive work environments tend to foster greater employee engagement, whereas workplace overcrowding or lack of representation can diminish morale and productivity (Murphy, 2001).

This study examines how financial markets value employee happiness by analysing monthly stock performance of firms in the United Kingdom listed in the annual *"Best 100 British Companies to Work For"* (BC) rankings published by the Great Place to Work Institute between 2001 and 2020. We assess both short-term market reactions to changes in list inclusion and long-term stock performance of listed firms. Consistent with previous studies (Edmans, 2011; Fang et al., 2021), our results show that happy firms generate a statistically significant alpha of 32 basis points per month (3.86% annualized). When firms are weighted by their rankings, the monthly alpha further increases to 34 basis points (4.10% annualized), relative to the benchmark.

To ensure robustness, we employ the Fama–MacBeth (1973) regression framework, incorporating a dummy variable for inclusion on the BC list, along with a comprehensive set of firm-level controls, including size, beta, market-to-book ratio, age, leverage, tangible-to-intangible asset ratio, and share turnover. We also introduce employee-specific controls such as average salary, gender and ethnic diversity, and workplace density. Prior literature suggests that gender diversity enhances employee satisfaction (Adam and Alfawaz, 2025), whereas overcrowded workspaces negatively impact morale and performance due to reduced comfort and poor environmental fit (Murphy, 2001).

Our findings underscore that favorable workplace conditions—including higher wages, greater diversity, and reduced density—positively correlate with firm performance. Conversely, negative factors such as employee aging and overcrowding are associated with underperformance. These results highlight the critical role of employee happiness and workplace quality in driving firm-level success.

The remainder of this paper is structured as follows: Data & Methodology describes the data and methodology, Analysis and Findings presents the empirical findings and robustness checks, and Conclusion concludes with a discussion of the implications and contributions of this research.

Table 1 Summary of Sample Selections.

Years	List	Sample-F	Sample-N	Sample-D
2001	50	30	30	—
2002	100	48	23	5
2003	100	49	19	17
2004	100	42	10	19
2005	100	42	19	19
2006	100	42	21	20
2007	100	44	14	12
2008	100	44	12	12
2009	100	39	11	16
2010	100	42	13	11
2011	100	43	14	12
2012	100	47	15	11
2013	100	47	9	9
2014	100	42	12	11
2015	100	43	14	10
2016	100	43	12	11
2017	100	41	11	13
2018	100	40	13	12
2019	100	39	12	12
2020	100	39	11	11
TOTAL	**1950**	**846**	**295**	**243**
SAMPLE	**483**	**221**	**90**	**84**

"List" includes all firms in the BC rankings, both listed and unlisted. Sample-F comprises 483 unique listed firms. Sample-N and Sample-D refer to newcomer and dropped firms, respectively. In 2001, Sample-F and Sample-N are identical, and no firms were dropped.

Data & Methodology

The primary data source for this study is the annual BC lists that have been published by Sunday Times since 2001. The list itself is compiled by the Great Place to Work Institute, a global research and consulting organization founded in 1981 by Robert Levering and Milton Moskowitz. As of today, the institute collaborates with over 5,500 organizations worldwide, representing more than 10 million employees, and reaches an estimated 25 million readers through affiliated publications.

The credibility and influence of the institute have been widely acknowledged. For instance, Eamon Fitzgerald, CEO of Naked Wines, describes it as: *"What differentiates Best Companies is the reputation and trust. It's the number one employee engagement survey"*.[1]

The BC list is released annually on the first Sunday of March, which this study adopts as the portfolio formation date each year. Accordingly, March 1st is used as the event date for all years from 2001 to 2020.

In 2001, the inaugural list featured 50 firms, whereas in subsequent years the list was expanded to include 100 firms annually. Across 20 years, this results in a cumulative total of 1,950 firm-year observations. After excluding duplicate entries and firms that are not publicly traded, the final sample comprises 483 unique publicly listed firms, referred to as ***Sample-F***.

To facilitate further analysis, two additional sub-samples are constructed:

- ***Sample-N:*** Firms that appear on the BC list for the first time (newcomers).
- ***Sample-D:*** Firms that were included in the previous year but are absent in the current year (dropped firms).

Table 1 presents the year-by-year distribution of firms across these three samples (Sample-F, Sample-N, and Sample-D).

In addition to forming baseline samples, we construct weighted portfolios to evaluate the performance of listed firms under different weighting schemes. Specifically, three weighting methods are applied: *equal-weighting*, *size-weighting*, and *rank-weighting*.

Table 2 Summary of Generated Portfolios.

Portfolio Type	Sample-F	Sample-N	Sample-D
Equal-Weighted	*Portfolio FE*	*Portfolio NE*	*Portfolio DE*
Size-Weighted	*Portfolio FS*	*Portfolio NS*	*Portfolio DS*
Rank-Weighted	*Portfolio FR*	*Portfolio NR*	—
TOTAL	**3**	**3**	**2**

Portfolio names are abbreviated using the initials of the sample (F: full, N: newcomers, D: dropped) and the weighting method (E: equal, S: size, R: rank). FE, NE, and DE represent equal-weighted portfolios; FS, NS, and DS are size-weighted; FR and NR are rank-weighted. Rank-weighted portfolios are not constructed for Sample-D due to the absence of ranking data.

Table 3 Industry-based Portfolios.

Portfolio	Name	Constituents
IT	*Technology Stocks*	*Information Technology & Telecommunications*
IF	*Financial Stocks*	*Financial Services & Insurance*
IH	*Hospitality Stocks*	*Hospitality, Food & Beverage Service*
IM	*Industrial Stocks*	*Manufacturing & Production Services*
IO	*Other Stocks*	*Other industries*

Portfolios are equal-weighted.

These are implemented on ***Sample-F***, ***Sample-N***, and ***Sample-D***, where applicable.

First, we assign *equal weights* to all firms within each sample, resulting in the equal-weighted portfolios:

- **FE** (Full sample – Equal weight)
- **NE** (Newcomers – Equal weight)
- **DE** (Dropped firms – Equal weight)

Second, we construct *size-weighted portfolios*, where weights are based on each firm's market capitalization. Larger firms receive higher weights using the formula:

$$W_{it} = \frac{MC_{it}}{MC_t}$$

where W_{it} and MC_{it} represent the weight and market capitalization of firm i at year t, respectively. MC_t is the total market capitalization of the corresponding sample in year t. Size-weighted portfolios are created only for Sample-F and Sample-N, denoted as **FS** and **NS**, respectively.

Third, we construct *rank-weighted portfolios*, where weights are determined by each firm's position in the BC list. Since Sample-D firms are no longer listed and lack ranking data, this method is applied only to Sample-F and Sample-N, resulting in portfolios FR and NR (see Table 2). The weights are calculated as follows:

$$W_{it} = \frac{(\mathrm{LR_t} + 1) - R_{it}}{\sum_{j=1}^{k}(\mathrm{LR_t} + 1) - R_{jt}}$$

where R_{it} is the rank of firm i in year t, $\mathrm{LR_t}$ is the lowest rank in the list for year t, and k is the number of firms in the respective sample. The transformation $(LR_t + 1 - R_{it})$ inverts the ranking order so that higher-ranked firms (i.e., lower numerical ranks) receive greater weights.

Furthermore, we assess the uniformity and effectiveness of the BC list by segmenting *Sample-F* into five industry-based portfolios, as presented in Table 3.

To assess whether employee happiness influences firm valuation, we employ the Carhart (1997) four-factor model, an extension of the Fama and French (1993) three-factor model that adds a momentum factor. The model is estimated using monthly

data and specified as:

$$R_{it} - R_{ft} = \alpha + \beta_{RM-RF}(R_m - R_f) + \beta_{SMB}SMB_t + \beta_{HML}HML_t + \beta_{MOM}MOM_t + \varepsilon_{it}$$

where R_{it} represents the return of portfolio i in month t and R_f is the risk-free return. The intercept α captures abnormal returns, where a positive (negative) α indicates that the portfolio outperforms (underperforms) the market. The term R_m-R_f denotes the excess market return, whereas *SMB*, *HML*, and *MOM* capture the size, value, and momentum factors, respectively. These factors are computed following Gregory et al. (2013).

The use of monthly returns is justified on several grounds. First, it mitigates short-term noise and idiosyncratic fluctuations, offering a clearer lens through which to evaluate the long-term effects of employee happiness on performance (Edmans, 2011). Second, it aligns with the study's focus on sustained value creation rather than temporary price movements. Third, monthly data reduces the impact of microstructure issues such as bid-ask spreads, thin trading, and non-synchronous pricing. Lastly, while the BC list is traditionally released on the first Sunday of March, its publication has occasionally shifted to mid-March in recent years. Thus, monthly returns provide a consistent time frame for evaluating market reactions.

To examine market inefficiency duration, we further conduct a longevity analysis, complemented by cross-sectional regressions using the Fama-MacBeth (1973) methodology. For this, we construct a merged dataset (Sample-M) combining all firms listed in the FTSE 100 Index from 2001 to 2020 with firms from Sample-F (221 happy firms). After removing duplicates, Sample-M contains 429 unique firms.

The following Fama-MacBeth regression is estimated:

$$EXRET_{it} = \beta_0 + \beta_1 LDUM_{i,t} + \sum_{j=2}^{k} \beta_j \Omega_{i,t-1} + \omega_t$$

Where $EXRET_{it}$ is the excess return of firm i, net of the risk-free rate, in month t; $LDUM_{it}$ is a dummy variable equal to 1 if the firm is listed on the BC list at time t and 0 otherwise. $\Omega_{i,t-1}$ is a vector of lagged firm-specific control variables, while ω_t is the error term.

The control vector Ω captures firm fundamentals and workforce characteristics, enabling isolation of the independent effect of happiness (***LDUM***) on stock returns. Specifically, it includes: *FSIZE* (total assets), *BETA* (firm market beta), *FMB* (market-to-book value), *RET* (momentum return), *FAGE* (firm age), *FLEV* (firm leverage debt-to-equity ratio), *FTI* (firm tangible-to-intangible asset ratio), *FTUR* (firm share turnover, traded shares divided by shares outstanding), and employee-related variables such as *ESAL* (average employee salary), *EAGE* (average employee age), *ESIZE* (total number of employees), *EGEN* (gender diversification), and *EMIN* (minority diversification). These variables are computed using a rolling 24-month window, updated at the start of each month.

Our central hypothesis concerns the sign and significance of β_1, which captures the effect of inclusion on the BC list (a proxy for employee happiness) on excess returns. The null hypothesis is $H_0 : \beta_1 = 0$, implying no impact, while the alternative is $H_1 : \beta_1 \neq 0$. Following Fama and MacBeth (1973), we estimate the time-series average of coefficients and compute HAC-robust standard errors to test for statistical significance.

The regression employs heteroskedasticity and autocorrelation consistent (HAC) standard errors, with Bartlett kernel and Newey-West bandwidth of 6.0, to ensure statistical robustness. All financial and workforce-related variables are sourced from the Fame Database and LSEG Refinitiv. Descriptive statistics for these variables are provided in Table 4.

Analysis and Findings

Core Results. Table 5 presents the core results of the Carhart Four-Factor Model applied to the main samples. All three portfolios constructed from Sample-F (FE, FS, and FR) yield positive and statistically significant alphas, indicating that firms recognized for employee happiness consistently outperform the market. Specifically, the equal-weighted portfolio (FE) generates an average monthly alpha of 32 basis points (3.86% annualized), while size- and rank-weighted portfolios (FS and FR) deliver 31 bps (3.77% annualized) and 34 bps (4.10% annualized), respectively—all significant at the 1% level.

These findings are consistent with behavioral finance theories, particularly prospect theory (Kahneman and Tversky, 1979), which posits that investors tend to underreact to gradual, intangible value creation—such as improvements in employee well-being—while overweighting salient, short-term signals such as inclusion on the BC list. This behavioral bias contributes to the observed return drift and delayed market correction. Similarly, the risk-as-feelings hypothesis (Loewenstein et al., 2001) suggests that sentiment-driven biases may further distort investor judgment, slowing the incorporation of non-financial firm attributes into valuations.

Additionally, the R^2 values of portfolio *FE* and *FR* indicate that more than 80% of return variation is explained by the model's factors and alpha. Notably, the market risk premium, size (*SMB*), value (*HML*), and momentum (*MOM*) factors have positive coefficients, each significant at the 1% level. Both portfolios exhibit lower market betas (~ 0.50), suggesting that happy firms are less sensitive to market fluctuations. The positive and significant SMB and HML coefficients imply that these happy firms are typically small-cap and value stocks, while the positive

Table 4 Descriptive Statistics.

Variables	Code	Mean	Median	Std. dev.	Min.	Max.	Count
Employee (number)	ESIZE	5159	4356	38,929.63	58	188,661	429
Employee Age (years)	EAGE	33	28.5	12.89	18	64	429
Employee Salary (£)	ESAL	28,896.76	26,254	12,295.71	14,900	65,000	429
Female Employee (%)	EGEN	37.42	34.00	14.53	14.00	95.00	429
Minority Employee (%)	EMIN	19.40	22.00	9.39	6.00	66.00	429
Total Assets (£ bn)	FSIZE	116.12	10.62	342.42	0.01	2,373.00	429
BETA	BETA	0.94	0.97	0.50	−0.25	1.86	429
Market-to-Book Value	FMB	6.65	4.10	19.80	0.37	197.14	429
Firms Age (years)	FAGE	88.07	72	75.26	1	325	429
Debt-to-Equity Ratio	FLEV	12.62	6.68	28.85	0.33	270.69	429
Share Turnover (%)	FTUR	16.91	5.12	29.01	0.01	90.52	429
Tangible-to-Intangible Ratio	FTI	18.55	7.95	22.32	2.45	81.78	429

Table 5 Results of Monthly Four-Factor Analysis.

Portfolio	SAMPLE-F			SAMPLE-N			SAMPLE-D	
	FE	FS	FR	NE	NS	NR	DE	DS
α	0.3160*** (0.0712)	0.3085*** (0.0724)	0.3358*** (0.0756)	0.3372*** (0.0671)	0.3423*** (0.0702)	0.3806*** (0.0714)	0.1755 (0.1266)	0.1921 (0.1434)
Rm-Rf	0.4755*** (0.1345)	0.6078*** (0.1785)	0.5430*** (0.1607)	0.4730*** (0.1486)	0.5541*** (0.1938)	0.5580*** (0.1877)	0.3611*** (0.1033)	0.4217*** (0.1329)
SMB	0.2615** (0.1233)	0.0643** (0.0319)	0.4416** (0.2186)	0.3797** (0.1729)	−0.0084 (0.0823)	0.2580** (0.1303)	−0.0627** (0.0303)	−0.1583** (0.0787)
HML	0.2104** (0.1011)	−0.3323 (0.2417)	0.1306** (0.0621)	−0.0647** (0.0315)	−0.3514* (0.1839)	−0.2070** (0.1018)	−0.2112** (0.1062)	−0.1734** (0.0875)
MOM	0.3740*** (0.1360)	0.1000* (0.0534)	0.4000*** (0.1428)	0.1720** (0.0839)	0.0478* (0.0270)	0.1040* (0.0562)	−0.4114* (0.2176)	−0.2790* (0.1468)
R^2	0.8125	0.7103	0.8088	0.7904	0.6292	0.7389	0.5430	0.5144
Firms	429	429	429	90	90	90	84	84

Portfolio abbreviations are defined in Table 2. The OLS time-series regressions use HAC-robust standard errors and covariance estimates, shown in parentheses. Asterisks indicate statistical significance: *$p < 0.10$, **$p < 0.05$, ***$p < 0.01$.

MOM coefficients indicate continued momentum from past performance.

Sample-N (newcomer firms) exhibits even stronger performance. All three newcomer portfolios outperform their Sample-F counterparts, suggesting that firms newly added to the BC list generate higher abnormal returns than long-term listees. For example, the equal-weighted NE portfolio yields a monthly alpha of 34 bps (4.12% annualized), while the rank-weighted NR portfolio achieves an even higher alpha of 38 bps (4.66% annualized). These findings indicate that higher list rankings are positively associated with greater abnormal returns.

Notably, *Sample-N* portfolios share similar characteristics with *Sample-F*, except for the HML factor, which turns negative and significant, indicating that newcomer firms tend to be growth-oriented (low book-to-market) rather than value stocks. The positive SMB coefficient again confirms a small-cap bias. While the MOM factor remains positive, its lower magnitude and significance suggest weaker momentum relative to *Sample-F*.

As expected, *Sample-D* (dropped firms) underperforms. The DE and DS portfolios yield insignificant alphas, confirming that the market rapidly incorporates negative signals such as list removal. Risk factor loadings indicate that dropped firms tend to be large-cap, growth-oriented, and recent underperformers—consistent with investor aversion to deteriorating workplace conditions.

Industry-based Analysis. Table 6 reports the four-factor model results by industry, providing evidence on whether abnormal returns from BC-listed firms are sector-dependent. All industry-based portfolios generate positive and significant alphas, supporting the robustness of the main findings across sectors.

The technology sector (IT) exhibits the highest alpha at 33.24 bps, highlighting the heightened impact of employee satisfaction in knowledge-intensive industries, where innovation, creativity, and human capital are critical to performance. In such environments, engaged employees can drive substantial value through productivity and innovation.

The portfolio of hospitality and consumer services (IH) stocks closely follows, generating an alpha of 31.43 bps, underscoring the importance of employee well-being in service-centric industries where customer experience is directly linked to employee engagement. Happy employees in hospitality and consumer services may provide better customer experiences, leading to increased customer loyalty and higher firm profitability (Bibi et al., 2021).

The financial services (IF) portfolio also exhibits strong abnormal returns (30.15 bps). This highlights the importance of workplace satisfaction in industries where trust, client relationships, and intellectual capital are central to success. Employees in financial services firms who experience higher job satisfaction may exhibit improved decision-making, better client retention, and greater overall performance.

In contrast, the industrial (IM) and other (IO) portfolios exhibit lower, yet still significant alphas of 25.79 bps and 27.43 bps, respectively. The more modest impact may be attributed to the capital-intensive nature of these sectors, where working conditions tend to be more physically demanding and less flexible, often involving blue-collar roles. These factors may limit the extent to which employee happiness—relative to white-collar, service-oriented environments—can translate into enhanced firm performance. Additionally, the heterogeneity of the IO category may dilute the measurable effect of workplace satisfaction due to the diverse range of sub-industries it includes.

Table 6 Four-Factor Analysis for Industry-based Portfolios.

Portfolio	IT	IF	IH	IM	IO
α	0.3324*** (0.1018)	0.3015*** (0.0936)	0.3143*** (0.1129)	0.2579* (0.1375)	0.2743* (0.1418)
Rm-Rf	0.3958*** (0.1179)	0.7581*** (0.1979)	0.4246*** (0.1430)	0.6341*** (0.2068)	0.4965*** (0.1282)
SMB	−0.1884** (0.0976)	−0.2041* (0.1190)	0.1257 (0.1096)	−0.1417** (0.0689)	0.1154** (0.0585)
HML	0.1132 (0.0892)	0.3756*** (0.0926)	0.1756* (0.0966)	0.6664* (0.3513)	0.2783* (0.1511)
MOM	0.2601** (0.1149)	0.4063*** (0.1201)	0.6245*** (0.1825)	0.4063*** (0.1455)	−0.0908** (0.0452)
R^2	0.5792	0.6415	0.5927	0.5314	0.5160

Portfolio abbreviations are defined in Table 3. The OLS time-series regression employs HAC-robust standard errors and covariance estimates, reported in parentheses. Asterisks denote statistical significance levels: *$p < 0.10$, **$p < 0.05$, ***$p < 0.01$.

Table 7 Longevity Drift of Cumulative Abnormal Returns.

Months	CAR over		Months	BHAR over	
	Market	Industry		Market	Industry
6	2.4866	2.5604	1–12	7.4824*** (2.2197)	7.3793*** (2.1838)
12	5.0048	4.9810			
18	8.0106	8.1352	13–24	2.2103** (1.0294)	2.2507* (1.1718)
24	9.6649	9.6318			
30	10.3687	10.2512	25–36	1.2615* (0.7320)	1.1925* (0.6983)
36	10.5709	10.4135			
42	10.5701	10.4123	37–48	0.4344 (0.4381)	0.4718 (0.4553)
48	10.5316	10.3965			
54	10.5325	10.3984	48–60	−0.5131 (0.5765)	−0.5834 (0.6309)
60	10.5244	10.3941			

We derive cumulative abnormal returns (CAR) of each stock in list-stayer's portfolio by summing up their abnormal returns arithmetically at each event month t. We derive buy-and-hold abnormal returns (BHAR) by subtracting returns geometrically compounded market benchmark returns from geometrically compounded market-unadjusted returns of stock returns between months t_1 to t_2. Industry figures follow the same methodology. The standard errors are given in parentheses with significance level as: *:10% level, **: 5% level, and ***: 1% level.

Overall, the industry-based analysis supports the broader findings from the core sample, reinforcing the notion that firms prioritizing employee well-being tend to outperform their peers. While the magnitude of abnormal returns varies across industries, the results highlight that service-oriented and knowledge-intensive sectors—such as technology, financial services, and hospitality—benefit the most from employee satisfaction. These findings further confirm the value-enhancing role of workplace satisfaction, strengthening the argument that intangible factors, such as employee well-being, significantly contribute to long-term stock performance.

Longevity of Superior Returns and Market Efficiency. The consistent abnormal returns observed across portfolios imply inefficiencies in the UK equity market, contrary to the EMH. This study finds that the BC list offers a valuable investment opportunity, as the market is slow to recognize the value of employee happiness. To explore the persistence of these returns and test whether they arise from mispricing or risk premia, we conduct a longevity analysis. In case of mispricing, abnormal returns should gradually diminish as the market incorporates intangible value. This analysis is implemented through two approaches to verify this hypothesis.

First, we construct a list-stayers portfolio by excluding *Sample-D* firms from *Sample-F*, retaining only firms that remained on the list through multiple years. We compute cumulative abnormal returns (CAR) by subtracting the benchmark return from each firm's monthly return, then summing these adjusted returns across months since list inclusion. Second, we calculate buy-and-hold abnormal returns (BHAR) by geometrically compounding the raw returns and subtracting benchmark performance.

Table 7 presents the longevity drift of the CAR and BHAR for list-stayers, using both market- and industry-adjusted benchmarks. Results show that abnormal returns accumulate steadily in the first 36 months, peaking at 9.47%, after which the drift becomes volatile and statistically insignificant. BHAR results mirror this pattern, confirming that market participants gradually recognize the intangible value of employee happiness—but only after approximately three years, as the drift dies out.

These findings are consistent with prior studies (Filbeck and Preece, 2003; Edmans, 2011; Fang et al., 2021), all of which observe similar lags in market response to inclusion on the BC list. The 36-month recognition period identified here is broadly aligned with the 54-month lag observed by Edmans (2011) in the U.S. market.

Traditional finance theory (Fama, 1970) asserts that markets fully and immediately incorporate all available information into stock prices. However, the observed delayed adjustment to the intangible signal of employee happiness challenges this assumption. Instead, the findings align with behavioral insights from prospect theory (Kahneman and Tversky, 1979), which suggest that investors tend to underreact to intangible, long-term value drivers while responding more quickly to tangible, quantifiable indicators. As a result, markets may initially undervalue employee happiness, with its full impact on stock performance only recognized after sustained operational improvements.

Robustness Checks. To verify the robustness of our findings, we implement the Fama-MacBeth (1973) two-step regression procedure using *Sample-M* (FTSE 100 firms + BC-listed firms). The results, reported in Table 8, confirm the core hypothesis: employee happiness has a positive and statistically significant effect on stock performance.

Table 8 Fama-Macbeth regression results.

Variable	(1)	(2)	(3)	(4)	(5)	(6)
Intercept	1.3962*** (0.4176)	1.081*** (0.4545)	1.0270** (0.5226)	1.3481*** (0.6214)	1.5627** (0.7863)	1.2159** (0.6284)
LDUM	0.3584*** (0.0819)	0.3015*** (0.0735)	0.3374*** (0.0784)	0.4042*** (0.0973)	0.3388*** (0.0847)	0.3316*** (0.0727)
FSIZE^{+}	−0.2705*** (0.0948)	−0.2951*** (0.1093)	−0.2415*** (0.0862)	−0.2052** (0.1085)	−0.2102** (0.0900)	−0.2149*** (0.0702)
BETA	0.9397*** (0.2237)	0.9555*** (0.2944)	0.8543** (0.3559)	0.9451*** (0.3137)	0.9162*** (0.2635)	0.8988*** (0.1955)
FMB	−0.4103** (0.1864)	−0.2939** (0.1324)	−0.2841** (0.1442)	−0.3075* (0.1618)	−0.3237** (0.1445)	−0.2734** (0.1317)
FLEV	−0.1073 (0.0789)	−0.1936 (0.1353)	−0.1745 (0.1264)	−0.1446 (0.1156)	−0.1690 (0.1134)	−0.1811 (0.1168)
FTI	−0.1425 (0.1110)	−0.1369 (0.0925)	−0.1742 (0.1480)	−0.2137 (0.1515)	−0.2044 (0.1429)	−0.2306 (0.1721)
FTUR	0.3478** (0.1646)	0.3886** (0.1952)	0.4289* (0.2436)	0.4841* (0.2750)	0.5234* (0.2863)	0.5067* (0.2784)
RET	0.7833*** (0.2701)	0.8868*** (0.3079)	0.7694*** (0.2498)	0.7205*** (0.2393)	0.6906*** (0.2278)	0.6565*** (0.2184)
FAGE^{+}	−0.1249 (0.0919)	−0.1330 (0.1064)	−0.1165 (0.1013)	−0.1297 (0.1099)	−0.0659 (0.0558)	−0.0849 (0.0667)
ESIZE^{+}		−0.1074* (0.0601)	−0.0776 (0.0652)	−0.0607 (0.0433)	−0.0725* (0.0405)	−0.0581* (0.0314)
ESAL^{+}			0.3065* (0.1597)	0.1811 (0.1231)	0.2056 (0.1579)	0.2504* (0.1376)
EAGE^{+}				−0.0258 (0.0176)	−0.0285 (0.0192)	−0.0337* (0.0204)
EGEN					0.0427 (0.0743)	0.0684 (0.0561)
EMIN						−0.0361 (0.0745)

All models employ HAC standard errors and covariance estimates, using the Bartlett kernel with a Newey-West fixed bandwidth of 6.0000. Standard errors are reported in parentheses. Variance inflation factor (VIF) coefficients have been assessed, confirming the absence of multicollinearity. Statistical significance levels are denoted as follows: ***$p < 0.01$, **$p < 0.05$, *$p < 0.10$. The + superscript indicates variables expressed in natural logarithmic form.

In the fully specified model, which includes all control variables, the coefficient on the list dummy variable (LDUM) is 0.3316, significant at the 1% level. This indicates that firms included in the BC list outperform their non-listed counterparts by an average of 33 basis points per month (4.05% annualized), even after adjusting for a comprehensive set of firm-specific and employee-related characteristics. This result reinforces the argument that employee well-being contributes materially to firm value and is not subsumed by traditional financial or operational factors.

Consistent with prior literature, firm size (FSIZE) exhibits a negative and significant coefficient (–0.2149, at the 1% level), suggesting that smaller firms tend to outperform larger ones, possibly due to higher growth potential or more agile organizational structures. Market beta (BETA) is estimated at 0.90 (1% level), indicating that firms in the sample are relatively responsive to market movements. The negative and significant coefficient for market-to-book ratio (FMB) supports the conventional value effect, wherein firms with lower book-to-market ratios—typically growth firms—tend to earn lower excess returns.

Contrary to some earlier studies, leverage (FLEV) and the tangible-to-intangible asset ratio (FTI) are both negative but statistically insignificant, suggesting that these balance-sheet characteristics do not materially influence returns within this context. In contrast, share turnover (FTUR) exhibits a positive and significant coefficient (0.5067, at the 10% level), implying that firms with greater trading activity—possibly reflecting higher liquidity or investor interest—tend to yield superior performance. The momentum variable (RET) also shows a positive and significant relationship (0.6565, at the 1% level), consistent with well-documented momentum effects in asset pricing.

Among employee-related variables, only average salary (ESAL), employee size (ESIZE), and employee age (EAGE) are statistically significant. The positive coefficient on ESAL (0.2504, 10% level) suggests that higher average wages may serve as both a reward mechanism and a motivational tool, ultimately contributing to stronger firm performance. By contrast, ESIZE has a negative coefficient (–0.0581, 10% level), supporting the view that overcrowded workplaces may impair productivity and morale. This finding aligns with Murphy's (2001) argument that high employee density reduces personal space and creates poor person-environment fit, which may diminish overall efficiency. Similarly, EAGE shows a negative and significant relationship (–0.0337, 10% level), indicating that younger employees may be more conducive to firm performance—potentially due to higher motivation levels, adaptability, and lower health-related constraints compared to older cohorts.

Taken together, the robustness analysis supports the study's core proposition: employee happiness, as proxied by inclusion on the BC list, exerts a significant and persistent effect on stock returns. The findings remain consistent even after controlling for an extensive set of financial and human capital variables, thereby reinforcing the argument that workplace satisfaction constitutes a value-relevant intangible asset.

Conclusion

This study examines the impact of employee happiness on firms' financial performance, employing Carhart's (1997) four-factor model. Results indicate that employee happiness significantly enhances stock performance, as evidenced by our equal-weighted portfolio of the full list (*Sample-F*) achieving a 32-basis point monthly alpha (3.86% annualized) over the benchmark. By employing ranking-based portfolio weighting, this alpha increases to 34 basis points per month (4.10% annualized), highlighting the influence of company rankings on profitability. Our findings suggest that firms ranked higher on the *"Best Companies"* list achieve superior performance relative to lower-ranked firms.

We further observe that portfolios of newly listed companies generate substantial abnormal returns, with a 34-basis point monthly alpha (4.12% annualized), demonstrating that initial inclusion on the list correlates with stronger returns compared to ongoing members until the announcement of a new list. Ranking-based weighting enhances this alpha to 38 basis points per month (4.66% annualized), significant at the 1% level. In contrast, portfolios of delisted companies perform within expected ranges, recording a smaller, statistically insignificant alpha, indicating that bad news travels fast, with stock prices responding promptly to delisting.

For robustness, the Fama-MacBeth (1973) analysis confirms these results, showing that *"happy"* stocks, net of the risk-free rate, outperform the market by 33 basis points monthly (4.05%

annually). It also highlights three key findings: (1) firms with less crowded workplace for employees tend to perform better financially than those firms with overcrowded ones; (2) higher average salaries positively impact stock performance; and (3) a younger average employee age correlates with improved financial outcomes.

Disaggregated industry-level analysis reveals that the technology sector yields the highest alpha (33.24 bps), reflecting the stronger role of employee satisfaction in knowledge-intensive, innovation-driven environments. In contrast, the industrial sector exhibits more modest but still significant alphas (25.79 bps and 27.43 bps), likely due to its capital-intensive structure, physically demanding roles, and greater heterogeneity across sub-industries. These findings underscore the varying extent to which employee happiness translates into financial performance across different sectors.

Finally, a longevity analysis indicates that newly listed firms continue to deliver abnormal returns for 36 months after first appearing on the list, aligning with Edmans' (2011) findings of a drift that dissipates within five years. This suggests that stock markets recognize employee happiness-related intangibles only after an extended period, when tangible outcomes begin to materialize, corroborating Edmans' explanation of market inefficiency in the valuation of intangibles.

While these findings offer valuable insights, the study is limited to publicly traded firms due to stock price data availability, potentially omitting effects observed in private companies. Additionally, unobservable factors such as leadership style, corporate culture, or firm-specific HR policies may influence both employee satisfaction and performance, making causal interpretations challenging. Future research could address these limitations by incorporating private firms or employing natural experiments to better isolate the drivers of the observed relationships.

Data Availability

The datasets used and/or analyzed during the current study are available from the corresponding author upon reasonable request.

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Note

1 Great Place to Work Institute. http://www.greatplacetowork.net/about-us/our-history.

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Author contributions

The sole author, Ihlas Sovbetov, performed all aspects of the research and manuscript preparation.

Competing interests

The authors declare no competing interests.

Ethical approval

This study does not involve human participants or their data. Therefore, ethical approval was not required, in accordance with standard research ethics practices for non-human studies.

Informed consent

This article does not contain any studies with human participants performed by any of the authors. Therefore, informed consent was not required.

Additional information

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