Does The Stock Market Fully Value Intangibles? Employee Satisfaction and Equity Prices

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Summary of Findings

This paper documents significant excess returns to *Fortune* magazine's "100 Best Companies to Work For in America". Between 1998-2005, a portfolio of these firms earned an annualized return of 14% per year, over double the market return, and a monthly four-factor alpha of 0.64%. The outperformance is consistent, in both booms and recessions, and also holds when extending the sample back to 1984. (The Best Companies list was first published in a book in 1984, but was not published by *Fortune* until 1998).

These findings are robust to: controls for industry performance; controls for a large list of firm characteristics (including, but not limited to, size, value and momentum); equal- or value-weighting; and removing the effect of outliers. As expected, returns are higher when the portfolio is rebalanced each year to reflect annual updates in the *Fortune* list, compared to a simple strategy of buying and holding the 1998 list.

The paper uses stock returns as the primary dependent variable, rather than accounting variables, for a number of reasons. First, stock returns address issues of reverse causality – that profitable companies lead to employees being happier. A company's profits should already be impounded in the current stock price and so a profitable company should not generate superior returns going forwards. Second, employee satisfaction (ES) may improve shareholder value through many channels other than accounting performance, such as the launch of new products or patent filings. Third, the paper is concerned with the stock market's valuation of ES, and shareholder returns to a trading strategy based on ES.

Implication #1: Employee Satisfaction and Shareholder Value

The first implication is to suggest that ES is positively correlated with shareholder value. This is not as obvious as it may sound. Historically, employees were viewed as a cost to be minimized, no different to other costs such as raw materials. Management strategies therefore sought to extract as much effort as possible from workers, while minimizing their compensation (in terms of both cash salary and working conditions). ES thus may represent inefficiently high non-pecuniary compensation. Retention was not a motivation for increasing ES, as employees typically performed unskilled tasks and were easily substitutable. Intrinsic motivation was not a reason, as workers could easily be motivated extrinsically, via pay-for-output.

However, the world is now different. Human capital is increasingly important in the modern firm, called upon to exhibit creativity and initiative rather than follow prescribed processes. Since key outputs are hard to measure nowadays (e.g. teamwork, idea generation, building client relationships), the traditional motivation tool of pay-for-output

is often inappropriate. ES thus has an increasingly important role in generating *intrinsic motivation*. Satisfied employees identify with the firm and internalize its goals, and will therefore willingly exert effort even in the absence of extrinsic incentives. Second, ES can also achieve *retention* of key workers. This is critical to many firms for which employees are the most important asset and the greatest source of sustainable competitive advantage.

Implication #2: Market Valuation of Intangibles

Even if managers are aware of the long-run benefits of investing in human capital, they may forgo investment. The key problem is that such investment is intangible: while the costs are immediately observable (lower earnings), the benefits may not become observable for many years. Intangible investment may thus depress earnings and thus the stock price.

These "myopia" concerns rest on the assumption that the benefits of investment are very difficult to credibly communicate to the market. This explains why I analyze a widely-respected, publicly available survey which represents independent certification of a firm's intangibles. In addition, I delay forming my portfolios until the month after *Fortune* publication, to give the market time to react to the list. If the market fully incorporated the contents of the *Fortune* list, I should have found no abnormal returns to my portfolios. By showing that intangibles are not incorporated into the market, even when certified by a study as respected as *Fortune*'s, my study suggests that intangibles in general are not incorporated into the stock market, the vast majority of which have no equivalent of the *Fortune* survey for independent verification. This provides support for managerial myopia theories.

Implication #3: Socially Responsible Investing (SRI)

The traditional view of SRI is that it worsens investment performance, since SRI screens reduce an investor's choice set. Investors thus face an "either-or" choice: either to maximize returns, or to pursue non-financial goals (e.g. social responsibility) at the expense of returns. Indeed, many prior studies have found that SRI either worsens, or at best has no effect on returns. This paper shows that an SRI screen, based on employee satisfaction, may enhance returns. Investors thus may be able to "do well and do good."

Some Caveats

1. *Causality*. While I document a statistically and economically significant association between ES and stock returns, I cannot make strong claims about causality. The use of stock returns as the primary dependent variable addresses concerns of reverse causality from profitability to ES, but I cannot rule out the explanation that a third unobservable variable (e.g. superior management practices) drives both ES and performance – while I control for a large number of observable determinants of returns, by their very nature I cannot control for unobservables. This would not affect the conclusions on the

profitable trading strategy and the market's non-incorporation. However, it would mean that firms should not expect to increase corporate performance by improving ES (without changing management practices).

2. *Generalizability with respect to ES*. The *Fortune* survey only contains 100 companies per year, the right-tail of the ES distribution. This small sample may not be fully representative of the effect of ES *in general* on shareholder returns. For example, ES might only matters at very high levels.

3. *Generalizability with respect to SRI*. The results only document superior returns to an SRI strategy based on an ES screen. We cannot draw conclusions about the profitability of SRI in general, particularly using alternative screens (e.g. environmental or societal factors).