A POWERFUL STOCK-PRICE PREDICTOR

Exhaustive research shows that profit and revenue don't actually predict stock price, but some other, little-used metrics do.

David McCann

A new study provides perhaps the strongest evidence to date that certain human-capital metrics can predict a company's performance in the stock markets.

The research was nothing if not robust. Through extensive use of regression analysis, it tested the relationships between a set of human-capital metrics and stock-price movements at 22,100 companies over a 16-year period, 1996 through 2011.

A key finding of the study – performed by Jeff Higgins, CEO of the Human Capital Management Institute, and Pepperdine University professor Donald Atwater – may surprise investors, stock analysts and finance executives themselves.

Generally speaking, a company's net income and to a lesser extent revenue are considered the gold standards for shaping expectations of its stock's future performance. But the research found net income per full-time-equivalent employee (FTE) and net revenue per FTE – both commonly used financial metrics – to be the poorest predictors among the studied human-capital metrics. In fact, both are statistically insignificant, as is pure net profit without association with any human-capital metrics.

Instead, two metrics used by some human-capital analysts, but few other people, are powerful predictors of stock price, the research found. One, called "Return on Human Capital Investment" (Return on HCI), compares "Total Cost of Workforce" (TCOW) to net operating profit. (TCOW includes: all direct and indirect cash or equity compensation for employees and contingent workers; paid employee benefits, perks and rewards; retirement-related costs for both current and former employees; and costs for worker training, recruiting, employee relations, and severance and legal settlements.)

The other highly predictive metric is "Human Capital ROI Ratio." It measures the ratio of return on revenue (net of non-workforce expenses) to TCOW. For example, say a company has $1 billion in revenue and $800 million in total expenses, $500 million of which are people costs. To arrive at HC ROI ratio, subtract the $300 million nonpeople costs from revenue, leaving $700 million, and divide that by the $500 million in people costs.

In essence, the two metrics are different ways of measuring the percentage return on $1 invested in the work force, assuming all other factors remain constant. In the above example for Human Capital ROI Ratio, the result is expressed as 1.40, or a 40-cents positive return on the invested dollar.

Less predictive than those two metrics, but still statistically significant, are TCOW as a percentage of operating expenses and as a percentage of revenue.

"Everyone thinks net profit drives stock price," says Higgins, a former CFO, "and in my old finance world I thought so too. But what really drives stock price is productivity. Some might say Return on HCI and Human Capital ROI Ratio are synthetic profit metrics, but we see them as productivity metrics – the return on people's productivity. And when those numbers improve, your stock price jumps."

The study results are expressed in statistical language that's generally inscrutable to those who aren't academics or statisticians, and for the most part are given industry by industry rather than in the aggregate. At *CFO*'s request, the authors provided some numbers quantifying the predictive power of human-capital metrics in more accessible terms.

On average, given a 10 percent gain in the three most predictive human-capital metrics – Return on HCI, Human Capital ROI Ratio and TCOW as a percentage of operating expense – stock price jumped by 5.73 percent. By comparison, a 10 percent boost in net income was associated with a stock-price increase of just 0.8 percent.

Among specific industries, the report says the wholesale-trade and financial-services sectors led the way with a 9.6 percent leap in share price when the human-capital metrics rise 10 percent. Next were arts and entertainment at 8.8 percent and manufacturing, 7.5%. At the other end of the spectrum, the utilities sector actually showed a 0.7 percent retrenchment.

In the financial-services sector, the three human-capital metrics taken together were 7.92 times more predictive than net income, the authors told *CFO*. In the transportation and warehouse sector, the predictability of those three metrics were 2.53 times more significant either profit or revenue per FTE.

Good performance in profit or revenue per FTE can actually mask otherwise dismal results. For example, the investment banking subsector of the financial services and insurance sector saw median revenue per FTE climb by 21.8 percent over the study period. But median Human Capital ROI Ratio dropped by 29 percent while TCOW ballooned by 47.5 percent, negatively affecting investment banks' share prices.

Those results, says Higgins – who got his start in the human-capital-management field when he left his finance career to take a job running compensation at IndyMac Bank – portray fewer and fewer high-earning employees getting paid an ever-larger share of industry revenue. It calls into question whether investment-bank shareholders have been properly rewarded for their investments, he notes.

Clearly, there are many reasons behind the rise and fall of stock prices, including macroeconomic ones not under a company's control. In addition to net income for each company, variables controlled for by regression analyses included real gross domestic product, bank prime loan rate, actual vs. natural unemployment rate, producer price index, consumer price index, industrial production index and S&P 500 index. The study found that even after controlling for those variables, human-capital metrics had significant predictive capability.

But even better was a model employing those factors *plus* the three most predictive human-capital metrics mentioned above. The model explained from 35% to 64% of movements in stock price, depending on industry sector, according to the study report.

Net profit by itself, without a connection to any human-capital metrics, explained only 1 percent of stock-price movements, the authors wrote.

"If there is an actual statistical or causal link [showing that] human-capital investments do indeed positively impact financial outcomes, then it forms the foundation for ROI-based business cases for [such investments]," the study report states.

The greatest predictive power for the human-capital data was found in the "administrative support and waste management/remediation services" sector. After that came: arts and entertainment; finance and insurance; health care; manufacturing; mining; professional,

scientific and technical services; real estate, rental and leasing; transportation and warehousing; utilities; and wholesale trade.

The idea that human-capital metrics are linked with performance in the equity markets is not new. Groundbreaking research showing a link between training expenditures and stock price was done in the 1990s, and later updated to include additional such links, by Laurie Bassi, a labor economist who is CEO of consulting firm McBassi & Co. Other leaders in the field have included Jac Fitz-enz and Nick Bontis (Fitz-enz actually invented the Human Capital ROI Ratio metric).

Bassi, a registered investment advisor, since 2001 has been operating a fund, populated with stocks of companies known to be leaders in the field of human-capital management, that has significantly outperformed the S&P 500 index.

Find out how to link human-capital investments to positively impact on your company's financial outcomes by contacting us at hcmiseapac@hcminst.com