## REAL NUMBERS BY PAUL A. STRASSMANN

## DOES OUTSOURCING DELIVER THE GOODS?

## COMPANIES THAT SHIFT TECHNOLOGY PROJECTS TO A THIRD PARTY ARE NOT ASSURED OF FINANCIAL BENEFITS.

What is now referred to as Coase's Law states that a company will purchase goods and services from suppliers (that is, outsource work) if the suppliers' costs, plus the costs of completing such transactions, are less than the costs of getting identical work produced by a company's own employees.

To validate this application of Coase's Law from a technology perspective, I looked up two comparable pharmaceutical companies, Johnson & Johnson and Wyeth, in my database of public-corporation financial results. My object was to see

whether the company with a higher "outsourcing ratio," defined as purchases as a percentage of revenue, was indeed more profitable.

Ratios such as R&D costs-to-sales (13.4% for Johnson & Johnson, 13.2% for Wyeth), transaction costs-to-sales (182% vs. 196%) and net assets-to-sales (64% vs. 58%) were close enough to suggest that the firms were comparable in their financial structure.

However, Johnson & Johnson paid its 110,600 employees an average of \$90,461. That was 58% higher than what Wyeth paid each of its 52,385 employees, on average. Clearly, J&J was the higher-cost firm.

Yet, Johnson & Johnson was actually outsourcing less than Wyeth. The J&J outsourcing ratio was 45.2%, whereas Wyeth's ratio was 59.2%.

If a firm with higher employment costs were purchasing lesser amounts from lower-cost suppliers, it would follow Coase's Law that J&J would be less profitable. Right?

Wrong. Key financial indicators led to opposite conclusions. Johnson & Johnson vs. Wyeth ratios were as follows: return on shareholder equity, 26.8% vs. 22.1%; return on assets, 14.9% vs. 6.6%; sales growth, 12.8% vs. 6.1%; total annual return to shareholders, 11.7% vs. 1.3%.

But this is only one case. It might be explained by J&J's innovations in medical products, which require it to retain high-priced talent.

So I dug deeper.

The Standard & Poor's Compustat database made it possible to calculate the outsourcing ratio for 1,100 widely diversified companies (see chart). As is customary for similar analyses, the entire sample was ranked by return on



shareholder equity (ROE). The top quarter of firms—the winners—recorded a median ROE of 18.0%; the bottom quarter—the losers—a median ROE of minus 55.4%.

The winners and losers were then ranked according to their outsourcing ratios. The higher-ranking half of the 277 winners outsourced a median value of 49.1% of sales. The bottom-ranking half of the losers outsourced 83.2% of sales.

The statistics suggest that outsourcing does not appear to follow Coase's Law. Increasing purchases indefinitely in search

of the cheapest source of supply does not seem to deliver profitability, as measured by the return generated on shareholders' investments in their companies.

I also applied a wide range of other conventional measures (such as return on assets, shareholder returns, Information Productivity and sales growth) and came up with nearly identical results.

Do these findings suggest an inexplicable contradiction—a paradox—that runs counter to widely believed ideas about the benefits of outsourcing for gaining the lowest costs?

Probably not. The costs of making the purchases of lowest-cost product and services may explain the difference. Coase makes it clear that a purchase makes sense only if the transaction costs are lower than the difference in the costs of purchasing something compared with doing it in-house.

The conclusion: Either the costs of purchasing outside work are too high for the "losers"—that is, they don't manage their purchases well—or their businesses have inherent flaws.

Flaws that cannot be cured by shifting work to others. <

PAUL A. STRASSMANN (PAUL@STRASSMANN.COM) HAS FOUND THAT INHERENTLY FLAWED I.T. SYSTEMS DO NOT BECOME PROFIT-MAKERS WHEN COMPANIES OUTSOURCE THEM.

CHEAPER, BUT NOT BETTER	OUTSOURCED WORK as a percentage of sales	
COMPARISON OF OUTSOURCING RATIOS FOR 1,100 FIRMS	Median ratio for high-ranking half	Median ratio for low-ranking half
Top-ranked 277 firms by return on shareholder equity (median ROE = <b>18.0%</b> )	49.1%	54.6%
Bottom-ranked 277 firms by return on shareholder equity (median ROE = <b>minus 55.4%</b> )	71.1%	83.2%
SOURCE: STRASSMANN INC.		

PHOTOGRAPH BY STEVE FREEMAN