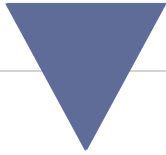


# REAL NUMBERS

BY PAUL A. STRASSMANN

# HOW MUCH IS AN EMPLOYEE WORTH?



THE VALUE OF YOUR WORKERS' KNOWLEDGE CAN BE A LOT GREATER—OR BARELY MORE—THAN THEIR SALARIES.

**Prosperous firms' innovations** come largely from leveraging the knowledge of employees—people who can improve products and services, offer better customer care or boost operating efficiencies.

But what is an employee worth?

Economists have long viewed compensation as an employee's worth. I argue that one must turn to the competitive marketplace to determine the true worth of an employee. And chief information officers should understand how to calculate the worth of their employees before they move to cut information-technology costs.

How can you quantify that?

Two months ago, I outlined how I.T. leaders can quantify the value of knowledge within an entire company by using a straightforward formula: subtract a company's year-end shareholder equity, or Financial Value, from its year-end market capitalization, or Market Value, to come up with what I call a company's Knowledge Value ("How Much Is Know-How Worth?" November 2005, p. 28).

Building off the formula above, divide Knowledge Value by Financial Value to derive a knowledge/financial ratio. The higher the number, the greater the importance knowledge capital plays in a company's success.

Improvements in the value of knowledge can result in market price appreciation, whereas cost reductions may accomplish that only indirectly.

At pharmaceutical firms, investments in knowledge can extend revenue and profits when the investments bring about research breakthroughs, rapid responses to health emergencies and improved diagnostics. On the other hand, technology investments that reduce head count or inventory may take several quarters to impress investors.

Only knowledgeable employees—with or without effective I.T.—can deliver productivity gains, competitive advantages or whatever else is necessary to help businesses thrive.

Consider Johnson & Johnson, the New Brunswick, N.J.-based maker of pharmaceutical and health-care products. Compensation for the company's



109,900 employees totaled \$11.07 billion in 2004, or \$100,764 per employee.

To calculate J&J's Knowledge Value, subtract its Financial Value (\$31.8 billion) from its Market Value (\$188.2 billion) to get \$156.4 billion. Divide the Knowledge Value by the total number of J&J employees (109,900). This number, the Knowledge Value per employee, equals \$1,423,114.

Then, compare J&J's average annual employee compensation of \$100,764 against its Knowledge Value per employee. Using the cost of capital for J&J, adjusted for risk, this translates into an annual equivalent

worth of \$282,723 per employee (see "Putting a Price on a Head," p. 75) for a full explanation.

I can show in Johnson & Johnson's case, the annualized valuation of knowledge exceeds the annual average employee compensation by \$181,959. This difference—a hefty surplus—is the net worth of an employee.

The table below shows how J&J compares to other drug companies. The net worth-per-employee numbers show dramatic differences. Novartis has a net-worth figure that is only a fraction of those for its competitors. This signals to the market a fundamental weakness. At GlaxoSmithKline, ironically, high levels of employee worth compared to its average annual compensation make the company vulnerable to raids on its staff by savvy recruiters. ◀

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## LOOKING BEYOND THE PAYCHECK

Pharmaceutical firms pay their employees relatively similar salaries, but their workers' true worth varies widely, based on the value of each company's knowledge capital.

COMPANY	KNOWLEDGE CAPITAL WORTH/ EMPLOYEE*	- ANNUAL EMPLOYEE COMPENSATION*	= NET WORTH/ EMPLOYEE*
GlaxoSmithKline	\$628,707	\$90,276	\$538,431
Wyeth	\$476,222	\$63,818	\$412,404
Johnson & Johnson	\$282,723	\$100,764	\$181,959
AstraZeneca	\$158,133	\$82,414	\$75,719
Roche	\$153,463	\$109,684	\$43,779
Novo Nordisk	\$123,923	\$83,655	\$40,268
Novartis	\$88,463	\$85,807	\$2,656

\*AVERAGE OF 2004 FIGURES