## REAL NUMBERS

## BY PAUL A. STRASSMANN

## HOW MUCH IS KNOW-HOW WORTH?



YOUR EMPLOYEES' KNOWLEDGE CAN BE A HUGE ASSET. HERE'S THE BEST WAY TO PUT A DOLLAR SIGN ON IT.

What exactly is "knowledge management?" A search on Google turns up 30.1 million results on Web sites for knowledge management, or KM. Plus, there are at least a dozen models that offer metrics for measuring the amounts of knowledge management in an organization.

Most widely cited is the Skandia Navigator. It includes indicators such as a company's market share, customers lost, assets per customer, employee turnover, PCs and laptops per employee, administrative expense per employee and I.T. expense per employee. The resulting metric is called a Human Capital Index.

Another frequently used approach: the Balanced Scorecard, which assigns relative weights to a vote by a committee about intangibles such as innovation and learning, business process improvement and customer relationships, to come up with a composite scoreboard rating.

The Skandia Navigator and Balanced Scorecard both rely on subjective evaluations of corresponding indicators. Shortcomings of these methods become apparent when you try to convince skeptical budget review committees why Knowledge Management deserves a hefty allocation. You may get encouragement but little money until you can produce evidence why KM is valuable as well as demonstrable.

The most acceptable and simple KM metric is based on the difference of Market Value, or the stock market valuation of a firm, and Financial Value, defined in financial reports as stockholder equity.

Each day, investors vote on the worth of a corporation and arrive at an estimate that is reflected in the Market

Value of a firm's shares. In most cases, the Market Value is greater than the Financial Value.

Why? Accountants don't know how to explain the worth of employees' knowledge, trademarks, accumulated software, customer loyalty and other intangibles—underscoring a major difference between the way CFOs and CIOs evaluate technology operations. CFOs look at I.T. strictly in terms of financial accounts; CIOs also look at intangible factors such as the worth of the knowl-



edge held by the company's workforce.

One caution: This approach may not apply at companies subject to "irrational exuberance" in the stock market. I eliminate such instances by checking whether the stock prices may be excessively volatile, as measured by a beta coefficient that is less than I.O. That measurement is available from sources such as *finance.yaboo.com*.

To illustrate my formula for Knowledge Management, I extracted data from 2004 financial statements for pharmaceutical firms with very stable stock market valuations (see "A Prescription for Success," below).

The most noteworthy indicator is Knowledge Value. You can get this figure by subtracting the Financial Value from the Market Value. To get a further metric, divide that result by the company's number of employees (see "Putting a Price on Brainpower," p. 79).

By examining the Knowledge Value figures, you'll see that Johnson & Johnson and GlaxoSmithKline have succeeded in keeping their employees motivated and, in the end, contributing to their high KM rankings.

On the other end of the spectrum are Wyeth, AstraZeneca and Novo Nordisk. These firms need to boost the Knowledge Value of their employees to compete against J&J, Glaxo and the other top drug companies.

Until CIOs master the economics of Knowledge Management, they can only defend information-technology spending in terms of costs instead of value-creation.

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## A PRESCRIPTION FOR SUCCESS

Some pharmaceutical firms know how to utilize their employees' brainpower—as measured by Knowledge Value—and some don't. (Numbers below are in millions of dollars.)

COMPANY	MARKET VALUE	- FINANCIAL VALUE =	KNOWLEDGE VALUE
Johnson & Johnson	\$188,213	\$31,813	\$156,400
GlaxoSmithKline	\$139,032	\$11,352	\$127,680
Novartis	\$122,651	\$33,783	\$88,868
Roche	\$81,743	\$24,731	\$57,012
Wyeth	\$56,823	\$9,848	\$46,975
AstraZeneca	\$59,900	\$14,418	\$45,482
Novo Nordisk	\$16,330	\$4,824	\$11,506