How do you measure innovation?

When it comes to measuring innovation, there is no one definitive answer. Is it simply an intellectual property matter or are there ways the innovation can be quantified? Can innovation have a bigger impact beyond the bottom line?

The search for a reliable way to measure the success of innovation and research and development (R&D) has occupied some of the finest business minds. Understanding the payback on investment in new products and processes should, in theory, allow companies to target their spending better and avoid costly forays into unsuccessful research.

In 2002, in order to support its community of countries, the European Commission (EC) set out a plan for its members to form the world's most diverse and vibrant economic bloc, with innovation and R&D central to its success. But the European Union's spending on research into global R&D — business R&D in particular — as a percentage of GDP saw it fall between Japan and the US, leaving the EC lagging behind where it expected to be.

But how can businesses truly understand if their investment in innovation is proving fruitful? Traditionally, there have been various metrics to help assess innovation. They include (but aren't limited to) looking at the number of patents filed annually; the number of ideas that employees submit for consideration; and annual R&D budget as a percentage of sales.

As with many measurements, in accounting or otherwise, there is no perfect gauge. But Bruce Tether, Professor of Innovation Management and Strategy at Manchester Business School in the UK, suggests that the method most widely accepted to track the success — or not — of innovation is to look at a new product or services line's share of sales across a three-year period from its introduction.

However, many of these measures tend to miss one of the central benefits of investment in innovation. By focusing on the inputs (spend) and outputs (sales, patents), they miss the central benefits of fostering innovation: the learning of new techniques, the stimulation of new ideas and the increased ability to adapt and harness new knowledge, not just in new areas, but in existing parts of the business. To leave these elements out of the innovation equation would be akin to ignoring the nutritional properties of food and simply measuring how much goes in one end and out the other.

The issue for businesses is to understand which elements are important to innovation measurement, and how they can be successfully integrated into the structure. A combination of output metrics, plus organizational structure and capability analysis, must be considered as a whole. And that means drilling down into the business, looking beyond the outputs and measuring how the organization benefits from its experience of innovation.

One of the most successful proponents of this is global conglomerate 3M. The business is centered on innovation, and as such has many organizational structures that make R&D core to its culture. But it also sets metrics — such as 30% of each division's revenues must come from products introduced in the last four years. Employees are encouraged to spend 15% of their time on looking for innovation — consistently, no matter the company's performance. "The consistency in the bad years is particularly important," says 3M Marketing Vice-President David Powell.[1]

In other words, for all the effort in gauging the success of an output, those with a better understanding of their innovation ecosystem take a more rounded approach. As venture capitalist Henry Doss suggested,[2] in 2013, understanding and capturing the process by which innovation occurred is as important as focusing on the output.

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