INNOVATION

Reevaluating Incremental Innovation

FROM THE SEPTEMBER–OCTOBER 2018 ISSUE

A decade ago INSEAD marketing professor Marcel Corstjens was consulting with employees at a multinational consumer packaged goods company about ways to rejuvenate one of its biggest brands. During three days of meetings, he found a one-hour presentation by the company's R&D team deeply fascinating. But no one else did. "There were many ideas that could have been developed," he says, "but at the end of the R&D session everyone said, 'OK, let's get back to the communications and advertising issues,' and nobody ever talked about the R&D again." It's no secret that large CPG companies are marketing powerhouses, but this apparent disregard for R&D insights stuck with him. Although CPG companies rank far behind high-tech and health care companies in R&D spending, some do devote more than $1 billion a year to R&D. Corstjens wondered: What kinds of returns are they getting?

WILL HAYWOOD

To find out, he and two colleagues conducted a statistical analysis of R&D spending and growth, using data on the world's top 2,500 firms. After excluding companies with less than $1 billion in revenue, they examined the relationship between sales and a number of variables: R&D spending, labor costs, capital expenditures, and marketing spending (using selling, general, and administrative expenses as a proxy). They then calculated each variable's effect on sales growth. They conducted their analysis first by industry, focusing on pharmaceuticals, food, and CPG, and then by company.

The industry analysis showed that in the CPG firms, R&D spending did not drive sales; marketing spending seemed to be the primary driver. But in the pharmaceutical industry, the researchers found strong and significant gains from both R&D and marketing spending.

Turning to individual CPG companies, the researchers discovered a distinction between those with relatively large R&D budgets and those with smaller ones. The former (including Procter & Gamble, whose $2 billion R&D budget is the world's largest) saw no measurable relationship between that investment and sales. The latter (including Henkel, L'Oréal, Beiersdorf, and Reckitt Benckiser) did see a correlation.

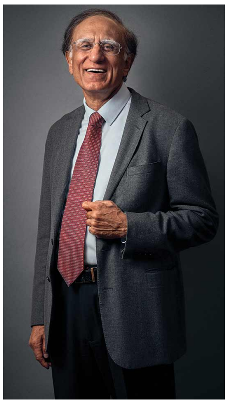
After studying the pattern and interviewing experienced R&D executives, the researchers concluded that companies with very large R&D budgets are incentivized to pursue expensive, large-scale innovation efforts that have the potential to become blockbuster new products—and that those projects receive the bulk of R&D funding. The problem with this high-risk, high-reward strategy is that it may not pay off. "Despite spending on average $2 billion per year on R&D for the past 15 years, P&G has had far more failures than hits," the researchers write. "Simply put: The company has bet big and lost big."

The researchers found that, in contrast, Reckitt Benckiser—the British firm whose brands include Clearasil, Lysol, and Woolite—exemplifies a more profitable strategy of pursuing less ambitious innovations that, without fanfare, drive sales higher. They call this the Lorenzian strategy, after the MIT mathematician Edward Lorenz, who described how a small action (such as a butterfly's flapping its wings) can lead to an improbably large event (such as a tornado). "[Reckitt Benckiser] doesn't have the deep pockets to spend on big-bang innovation," they write. "So it opts for a different approach: spend small, but focus that investment on marginal improvements in their most valuable brands, aimed at solving real consumer problems, that consumers value and would pay a little more for." They cite the company's Finish brand of dishwasher detergent. Decades after the original product's launch, Reckitt Benckiser added a rinse agent and changed the name to Finish 2-in-1. A few years later it added a salt component and renamed the detergent Finish 3-in-1. Today the product is Finish All-in-1, owing to the addition of a glaze-protection agent. With each incremental improvement, sales and profits grew.

"It's Very Risky to Bet Only on Blockbusters"

Other successful small-scale innovations involve packaging. In 2004, when McDonald's changed how it sold its milk, going from cardboard boxes

Sanjay Khosla spent more than 30 years as an executive at Unilever and Kraft, and now, as a senior adviser at Boston Consulting Group and a professor at Northwestern's Kellogg School, he helps companies find ways to increase organic growth and improve their innovation process. He spoke with HBR about balancing the pursuit of incremental innovations with more-ambitious projects. Edited excerpts follow.



JON ENOCH

What's the main takeaway from this research?

That companies that are successful at innovation build on what's working. They look for what I call the 3Ms: areas with good profit margins, momentum, and the potential to make a material financial impact. They try to find a balance between quick wins and medium- and long-term projects. It can't be just about blockbusters, because it's very risky to bet only on blockbusters.

When you ran Kraft's developing markets businesses, what kinds of innovations were most successful at driving growth?

Tang is an example. By 2007 its sales outside the United States had plateaued at about $500 million and begun to slide. So we created a cross-functional team on which R&D and marketing and supply chain experts worked together and asked it to push sales to $700 million within five years. We gave it a blank check—lots of resources and autonomy, and encouragement to experiment and fail fast. It came up with new flavors, such as

to translucent plastic jugs resembling old-fashioned milk bottles, sales tripled in just a year. Heinz has grown sales of ketchup by introducing new packaging, including bottles that are stored upside down (to facilitate easy pouring) and fast-food dipping trays that make it less messy to eat ketchup with fries.

On the basis of their interviews with R&D employees, Corstjens and professor Gregory Carpenter of Northwestern's Kellogg School of Management conclude that companies placing bigger bets on R&D do see some returns on those investments, but they may not be obvious, top-line payoffs. For instance, he says, R&D can help a company reduce costs, thereby increasing profits without generating additional revenue. He points to one company where researchers focused on ways to increase food products' shelf life. Still, he observes that companies operate under two distinctly different philosophies depending on the size of their R&D budgets. "The motto of companies with big R&D budgets is 'bigger, better, faster,'" he says, whereas companies with smaller R&D budgets "seem to do extremely well by tweaking and improving things in their brands and creating a lot more sales."

The tension between the pursuit of ambitious R&D efforts and more-incremental innovation isn't new. In a classic 2007 HBR article ("Is It Real? Can We Win? Is It Worth Doing?: Managing Risk and Reward in an Innovation Portfolio"), Wharton professor George Day describes various methods companies can use to ensure the right mango in the Philippines and pineapple in the Middle East. It became entrepreneurial and nimble and looked not only at product innovations but also at design and packaging innovations, supply chain innovations, and business model innovations. Within five years sales were above $1 billion. Following a similar approach, Oreo went from sales of $200 million to sales of $1 billion outside North America in six years.

How much are returns from innovation limited by the culture inside large CPG firms?

The biggest issue is not how much firms spend or how they spend it; it's about the connections between functions. At too many companies, R&D is looking in the mirror at itself instead of looking out the window at consumers. The scientists are doing their own thing, without a focus on achieving commercial value. That's one reason small companies are winning market share. Big companies can still grow, but they need to focus on categories where they can win, create cross-functional, entrepreneurial teams, and become far more agile in their execution.

How is innovation changing inside big CPG firms that, like Kraft Heinz, have been bought by private equity firms?

In the case of Kraft Heinz, the buyer, 3G Capital, has a very different philosophy and culture than most companies, so there are a lot of changes. Many PE firms

balance of high-risk, high-reward innovations and safer, targeted ones. (He calls the two types Big I and Little I innovations.) Interestingly, when he surveyed the landscape a decade ago, he reached a conclusion opposite to the one in the new research: that most companies were overinvesting in Little I innovations and needed to pay more attention to potential game changers.

Corstjens's team notes that the different approaches to R&D are not only a function of budget size; they also stem from culture. Among the firms in the study that favor smaller innovations, some have roots in the chemical or pharmaceutical industries, where the R&D function typically enjoys more power and respect than at CPG firms. The researchers believe that in the latter, R&D is often overshadowed by marketing, reducing the likelihood that spending on it will translate to sales. "When R&D has a respected voice and collaborates with marketing, firms have more success with innovation," they write.

About the Research: "Newton Versus Lorenz: Which Is the Better Model for Successful Innovation in Consumer Goods Companies?" by Marcel Corstjens, Gregory S. Carpenter, and Tushmit M. Hasan (*MIT Sloan Management Review,* forthcoming)

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Stephane Caraguel 5 months ago

Instead of opposing incremental and big-bang innovation, a better approach is to manage a portfolio of projects, containing both types of innovation, and diversified along several dimensions: expected impact on business (expected dollar amount), time horizon (short to long-term projects), risk factors... This approach has been successfully applied in industries like Pharma (R&D portfolio of drugs), Private Equity.

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