

THE NEW R&D ROLE

Spurred by the cross-functional approach, R&D has become the quintessential team player

We've all heard the news about product development teams — they are here in full force, and here to stay. But what does that mean for the research and development function? What is the role of R&D in product development if the advent of cross-functional teams has diluted the responsibility for product development projects?

According to those in the know, R&D remains the underlying force in product development, although the constancy of that force may have become slightly less visible. Throughout the entire development process, R&D functions as the gatekeeper, the innovator and the stronghold for new product success. Although the formalization of that role depends upon the size and structure of a company, it's clear that for both small and large companies, R&D remains crucial throughout new product development.

Team roster

The functions typically represented in cross-functional product development teams include: Research and Development, Quality Assurance, Marketing, Sales, Operations, Finance, Purchasing and Creative/Culinary experts.

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ment team is involved throughout the entire product development life-cycle," says John Gregg, vice president of research and development at Kraft Foods North America, Glenview, Ill.

That sentiment seems to penetrate the industry from large corporations such as Kraft Foods through smaller, more limber companies such as Odwalla Inc., Half Moon Bay, Calif., where the product development process is much more fluid and less formalized but nonetheless counts upon R&D to anchor the process throughout development.

"Much of the product's success is dependent upon R&D," says Barr Hogen, creative chef at Odwalla. "R&D makes sure all standards are met — shelf life studies, plant trials, labeling requirements such as GMO-free, kosher, etc. At each step of a product's development we have R&D present, because they are adept in reining in our ideas and making them plausible and compliant. In this way, we work on a system of checks and balances between our creative and scientific processes."

At Kraft, the role of R&D in product development is formalized and defined. "R&D's initial role is to bring the idea to life through prototyping. Concepts can be described, but when you see something in a three dimensional format that you can see, feel and hold, you can improve a concept much faster and more cost efficiently than taking a product directly to the market to test," says Gregg. "In addition, R&D capitalizes on computer skills which can move the product development lifecycle even faster because you can make changes to concepts that much quicker."

The protocol at Kraft Foods is for R&D to work with marketing to refine a proposed product concept. This step focuses upon flavors, texture and packaging. Then R&D drives through development and commercialization to deliver final product specifications according to the prod-

uct description and packaging before the project enters production.

At smaller companies the process can be much more fluid. Odwalla holds weekly meetings wherein the products that are under development are discussed with nationwide participants via teleconferencing. These exchanges discuss project status, next steps and allow the opportunity to troubleshoot any current obstacles. Odwalla always has numerous new products in the hopper, as the company's goal is to introduce several new products each quarter for both of the company's brands — Odwalla (West Coast and throughout the Midwest) and Fresh Samantha (East Coast from Maine to Florida).

"We religiously meet weekly because the creative process is ongoing at Odwalla. Each function reserves the right to change and adapt products and processes according to how a project develops. Similar to a tag team structure, a bigger company may have marketing instigate a gold standard idea and have R&D implement that. At Odwalla, our team works together throughout the entire process," says Hogen. "I may come up with an idea or fresh perspective from playing around with concepts, and R&D will create the magic to make that initial creative process tangible for a 500 gallon batch level when I've been working on a 200g batch level."

Hogen relates a tale of formulating a natural healthy sports drink named after the largest group in Odwalla — the route sales representatives who are responsible for the physical work of distributing the products.

"Odwalla emphasizes innovation which really allows me to be creative. In this case I solicited feedback from those employees whose daily job is a workout. They told me what they want in a sports drink and then they tested out my formula," says Hogen. "It was great because I got buy-in from all the people in the company, and feedback that everyone loved the

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product. Now it's time for the next step — strategic marketing for the product so we can launch it in the market. This has been a fun product development process but we could only embark upon the adventure this way because we're a small company."

The R&D police

But for both small and large operations, the essential qualities that are employed by R&D during product development are responsible for the consistent quality of products released into market. Whereas the creative role embodied by a culinary chef or other function may be rather free-form, R&D provides the scientific foundation for consistent quality.

"As part of Kraft's R&D process, we call on many areas to finalize a product, including nutritionists, regulatory specialists, food safety and shelf life experts, process development, market research, distribution, sales and scientists," says Gregg. "We apply technology innovations to our formulations and manufacturing processes to create the highest quality product for consumers."

"Communication with the team has to be continuous until the product is on the shelf, and we find that we actually cross train each other along the way," says Hogen. "The more I understand what R&D does, the more that helps my creativity." ■