Connect and develop at Procter and Gamble

OCTOBER 27

John Bessant

Exploring Innovation in Action: 'Connect and Develop' at Procter & Gamble

Next time you go into a supermarket, think about innovation. Not only are you likely to encounter a massive range of products – food, drink, homecare, personal care, luxury goods, etc. – but you're likely to find them constantly changing. Watch any category and see how much the offer changes – the range, the packaging, the branding and advertising/ promotional storyline and, of course, the products themselves. Most of this change is incremental – you'll have to look closely to pick up on the minor shifts in the shape of the coffee jar or the improved seal on a toothpaste cap. But from time to time there are radical shifts – a new generation of an established product but embodying new technology or sometimes the emergence of a whole new product category.

Now think about the challenge this poses for the manufacturers of those products – a game played out every week in thousands of supermarkets where they compete with other manufacturers for the attention (and hopefully the purchases) of an army of shoppers. Innovation is very much the name of the game and it's a relentless quest for novelty. It's a powerful force driving a company like Procter & Gamble (P&G) forward – as their Chief Technology Officer, G. Gilbert Cloyd comments, *'we're facing an ever- faster pace of innovation in consumer-product markets. We think the pace of innovation has roughly doubled in the past 10 years. So when we make an innovation and bring it into the marketplace, it has a much shorter market life than what it had previously. We need to be moving to upgrade our brands even more frequently . . . the competition is very fierce. Fifteen years ago, when we had a lot of generic brands or private labels, they were often not true brands; they were products. Now the brands that we face from retailers, from regional competitors, are very well-developed brands.'*

P&G have been players in the household and consumer goods market for nearly 200 years. They started life making candles at a time when these were still a common source of domestic lighting. But they moved on from those to other, related products – soaps and cleaning products. Today their range is a little wider – P&G have around 300 brands, including Crest oral care, Pampers nappies and baby products, Tide and Ariel washing powders, Tampax sanitary products, Flash and Vanish cleaners – the list goes on a long way!

To keep a range as wide as this refreshed and to develop new and improved products to feature on the supermarket stages around the world needs a powerful innovation engine. P&G have built a world-wide R&D operation which involves some 7500 scientists and a spend of around $3bn per year: maybe not as much as the

high-technology pharmaceutical industry but still very impressive for its sector. Nor is it simply throwing money at the problem – P&G have some very effective systems and structures to ensure efficient project selection and progression.

The engine worked well for them for well over a century. They had an impressive record on new product launches and many of their new categories went on to reach the magic number of becoming billion dollar brands – products whose annual sales can be as high as $150–200m.

But in the late 1990s there were concerns about this approach to innovation. Whilst it worked there were worries – not least the rapidly rising costs of carrying out R&D. In a world where technology is changing so fast and across so many frontiers it becomes increasingly hard to keep up. It's important in a diverse product company to try to cover all the bases – but which bases? – and how do you afford to cover all of them when getting on them carries a significant price tag? And what about the ones that get away – the new product ideas which are offered to the firm, or even developed in its own labs but which don't appear to have enough market promise and so are not backed? For P&G there were many instances of innovations which they might have made but which they passed on – only to find someone else doing so and succeeding. As CEO Alan Lafley explained, *'Our R&D productivity had levelled off, and our innovation success rate – the percentage of new products that met financial objectives – had stagnated at about 35 percent. Squeezed by nimble competitors, flattening sales, lacklustre new launches, and a quarterly earnings miss, we lost more than half our market cap when our stock slid from $118 to $52 a share. Talk about a wake-up call.'*[9]

Thinking along these lines led them to take a radically different approach to innovation. Instead of their traditional 'research and develop' model they moved to what they called 'Connect and develop' – an innovation process based on the principles of 'open innovation'. This idea originated in the work of Henry Chesbrough and basically challenges the dominant mode in which firms operate a 'closed' system, carrying out R&D but keeping it in-house so that they can exploit the benefits and control the use of ideas. This works but creates the kind of rising costs and insulation from new ideas which P&G were experiencing.

They recognised that much important innovation was being carried out in small entrepreneurial firms, or by individuals, or in university labs – essentially there was a great deal going on outside the company. They also saw other major players like IBM, Cisco, Eli Lilly and Microsoft beginning to go down the route of opening up their innovation systems.

That rang bells with their own experience as well. They recognised that in the past some of their best innovations had come from connecting ideas across internal businesses. So the idea of 'Connect and develop' was born – not with the intention of 'outsourcing R&D' but rather to increase their leverage in innovation by working better across internal and external networks.

Did it work? Lafley's original stretch goal was to get 50% of innovations coming from outside the company; by 2006 more than 35% of new products had elements which originated from outside, compared with 15% in 2000. Over 100 new products in the years from 2004 to 2006 came from outside the firm and 45% of innovations in

the new product pipeline have key elements which were discovered or developed externally. They estimated that R&D productivity increased by nearly 60% and their innovation success rate has more than doubled. One consequence was that they increased innovation whilst *reducing* their R&D spend, from 4.8% of turnover in 2000 to 3.4% in 2006. Their share price doubled and five years after the stock suffered a serious setback, they had a portfolio of 22 billion dollar brands.

How Does it Work?

Their early success with Connect and Develop was not an accident. It raises a jumber fo questions about how they stripped down and rebuilt their innovation model to cope with a very different 'open innovation' environment.

The key lies in harnessing the power of innovation networks. As Cloyd explained, *'It has changed how we define the organization, . . . We have 9000 people on our R&D staff and up to 1.5 million researchers working through our external networks. The line between the two is hard to draw . . . We're . . . putting a lot more attention on what we call 360 degree innovation.'*

Amongst their successes in internal networking was the Crest Whitestrips product – essentially linking oral care experts with researchers working on film technology and others in the bleach and household cleaning groups. Another is Olay Daily Facials which linked the surface active agents expertise in skin care with people from the tissue and towel areas and from the fabric property enhancing skills developed in 'Bounce', a fabric softening product.

Making it happen as part of daily life rather than as a special initiative is a big challenge. They use multiple methods including extensive networking via an intranet site called 'Ask me' which links 10,000 technical people across the globe. It acts as a signposting and Web- market for ideas and problems across the company. They also operate 21 'communities of practice' built around key areas of expertise such as polymer chemists, biological scientists, people involved with fragrances. And they operate a global-technology council, which is made up of representatives of all of their business units.

External links are built through an increasingly diverse set of mechanisms. One powerful approach is a group of 80 'technology entrepreneurs' whose task is to roam the globe and find and make interesting connections. They visit conferences and exhibitions, talk with suppliers, visit universities, scour the Internet – essentially a no-holds-barred approach to searching for new possible connections.

They also make extensive use of the Internet. One is their involvement as founding members of a site called InnoCentive (www.innocentive.com), originally set up by the pharmaceutical giant Eli Lilly in 2001. This is essentially a Web-based marketplace where problem-owners can link up with problem-solvers – and it currently has around 90,000 solvers available around the world. The business model is simple – companies post their problems on the site and if any of the solvers can help, they pay for the idea. Payments can range from $10,000 to $100,000 – and the

model appears to work. From the outset, InnoCentive threw open the doors to other firms eager to access the network's trove of ad hoc experts. Companies like Boeing, DuPont, and Procter & Gamble now post their most ornery scientific problems on InnoCentive's website; anyone on InnoCentive's network can take a shot at cracking them. Importantly the solvers are a very wide mix, from corporate and university lab staff through to lone inventors, retired scientists and engineers and professional design houses. Jill Panetta, InnoCentive's chief scientific officer, says more than 30% of the problems posted on the site have been cracked, 'which is 30% more than would have been solved using a traditional, in-house approach.'

Other mechanisms include a website called Yourencore which allows companies to find and hire retired scientists for one-off assignments. NineSigma is an online marketplace for innovations, matching seeker companies with solvers in a marketplace similar to InnoCentive. As Chief Technology Officer Gil Cloyd comments, *'NineSigma can link us to solutions that are more cost efficient, give us early access to potentially disruptive technologies, and facilitate valuable collaborations much faster than we imagined.'* And yet2com looks for new technologies and markets across a broad frontier, involving around

40% of the world's major R&D players in their network.

What is significant about the P&G use of these mechanisms is that it is part of a deliberate networking strategy to open up their innovation system. As Larry Huston comments, *'People mistake this for outsourcing, which it most definitely is not . . . Outsourcing is when I hire someone to perform a service and they do it and that's the end of the relationship. That's not much different from the way employment has worked throughout the ages. We're talking about bringing people in from outside and involving them in this broadly creative, collaborative process. That's a whole new paradigm.'*

Questions on Case Study

1. Open innovation' is becoming a fashionable approach to innovation, building on the advantages of networking. But what problems might the implementation of such an approach throw up?

2. ABC Electronics has heard about 'open innovation' and sees this as a possible solution to its flagging innovation efforts. How might they think about implementing such a programme – and what issues would they watch out for?

3. What might the downside be for taking an open innovation approach like that of P&G?