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- The future for energy markets
  In discussion with Wolfgang Ketter
- Ecological sensemaking and climate change

by Gail Whiteman

 Proactive environmental strategies pay off

**by** Melek Akin Ates, Jacqueline Bloemhof, Erik van Raaij & Finn Wynstra  The age of the consumer innovator
by Jeroen de Jong

 The psychology of ethical leaders

by Niek Hoogervorst

 Customer empowerment in new product development

by Christoph Fuchs & Martin Schreier

Why do firms go public?
by Abe de Jong, Carel Huijgen,
Teye Marra & Peter Roosenboom

The business school that thinks and lives in the future





## The age of the consumer innovator

by Jeroen de Jong

Consumers increasingly generate product innovations themselves, a fact that has important consequences for companies and how they organise their R&D. It also highlights the need for a new perspective on the role played by customers in product development.

> Thousands of creative and skilful consumers are engaged in their own personal product design and development, making new products and adapting existing ones to meet their individual needs. They're doing this in their free time, investing their own resources, tapping into the many sources and tools available online.

> There are entire communities of innovators, freely sharing knowledge and information about their novel and functional products. They represent an untapped resource for companies, generating valuable ideas, designs, and even physical prototypes that could simplify and ultimately improve the matchmaking process between new product developers and customers' needs.

#### Fast-moving trend

We have known about this trend in consumer behaviour from scientific research for several decades. However, recent studies carried out among users aged 18 upwards in the UK, Japan and the USA show that the trend is far more extensive than expected. It relates to a wide variety of industries, from high-tech machinery, scientific instruments and information technology to household, sports, and health equipment. Most importantly, knowledgeable innovators are producing prototypes of products for themselves that are finding acceptance among other users.

Consumer-innovators often cooperate with like-minded enthusiasts to develop and enhance their designs. They make their designs available to others at no cost. And the majority are not motivated by commercial interests: according to one study of consumers in the Netherlands, only about 10 per cent are interested in starting their own company.

They are passionate about their field of interest, and want to put their knowledge and skills into practice. If a commercial enterprise adopts their idea or prototype, the consumerinnovator is mainly content with public recognition of the part they played in its invention.

#### The mother of invention

A well-known example of a consumerinnovation is the Jacuzzi, originally a hydrotherapy bathtub developed by Candido Jacuzzi in the 1960s as a treatment for his son's skin disease. Often, scientists and technicians will design, adapt or make their own instruments for a specific purpose, in the absence of one that is commercially available. The same is true of individuals who improve and adapt products of all kinds for their own use. If identified and adopted by the manufacturers, these modifications can lead to the resolution of problems for other customers, and to improved, streamlined new products that more fully meet the needs of an existing market segment.

Necessity is not the only "mother of invention": there are many examples from a wide variety of markets, such as sports equipment, where user-innovators have been the first to invent completely new products. Users first built novel kayaking equipment for white-water rafting; creative enthusiasts started the now widespread kite surfing trend.

In the field of sports, companies already see the wisdom of mining for innovation among their customers; witness Nike, who implemented at least seven of the designs for basketball shoes submitted by thousands of

14 | 1st Quarter 2012



customers who responded to the company's invitation to contribute their ideas.

#### **Engaging innovation**

The bottom line is that companies need to learn to ask their customers smart questions. A change of perspective on users who make frequent contact with customer support could result in their experience and expertise being harnessed. When their calls are seen as potential sources of solutions to problems, rather than annoying complaints, lead customers or "outliers" can be identified, ie, homogenous groups of customers with similar needs, for whom a standardised product could be developed.

Lead users have needs that are well ahead of a trend: even before the "early adopters". They need a new product, so tend to create solutions. Lead customers are rare, but can be found. The American company 3M has developed and implemented an entire development process methodology based on engaging lead users.

A second possibility is crowd sourcing through the web: several platforms such as Innocentive (USA) and Battle of Concepts (the Netherlands) carry challenges and calls for ideas and prototypes for new products or solutions. Companies can also develop their own user communities. With a focus on getting closer to customers and exploring their experiences, a web-based user community can not only bring important insights to light, but may also result in the fruitful possibility of co-developing products to meet customers' actual needs.

Companies need to engage customers in a different way to leverage the potential of the growing trend in user-innovation. The role of companies continues to be one of providing consistently reliable and safe products to their customers, and companies have the resources for volume testing, quality control, production and other functions that are beyond the scope of individuals.

However, companies need customers and should seek to engage them right at the beginning of the production cycle. Rather than identifying a need and then focusing on inventing a product to fill it, companies can engage with consumers to see what innovations are already emerging, and help bring these new products into the world.

This article is based on the research paper *The age of the consumerinnovator,* which was published in *MIT Sloan Management Review,* 53(I), Fall 2011, p 27-35.

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