

DIGITAL LEADERSHIP

An interview with

Navi Radjou

Innovation and leadership advisor; Fellow at Judge Business School, University of Cambridge

***Frugal Innovation:
Innovating More with Less***



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Declining Returns on R&D is Forcing Companies to Rethink their Innovation Strategy

You have argued that the mainstream innovation model adopted by most companies is broken. Can you elaborate why?

The traditional model is broken because of a number of reasons.

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Firstly, it is extremely expensive. The world's leading companies spend over \$650 billion on R&D every year. In an economic environment that is not very growth-oriented, it is very hard for companies to sustain that level of investment. There are also obvious concerns over generating the right return on this investment. Studies suggest that more than 85% of new product launches in the consumer products industry fail in the market. It is leading to a situation where companies get lesser returns even if they spend more on R&D.

Secondly, mainstream innovation is rigid and lacks the agility to respond to big changes in the marketplace such as new competition. Five years ago, automakers never thought that Google could become a carmaker. Today, Google is building driverless cars. The innovation engine at large incumbents has to become more nimble and flexible.

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The third kind of shortfall in the existing innovation practices is that they are relatively closed and not open enough to collaborate with external partners. Organizations believe that they possess, in-house, all the resources they need to deal with demand. However, companies cannot handle all innovation on their own. They need to look for partners outside to augment their capabilities.

Frugal Innovation to Drive the Next Wave of Growth

Can you introduce us to the concept of frugal innovation?

Frugal innovation is about creating high-quality solutions that are simple, effective, and affordable with limited resources. It may not address all of customer needs, may be 80-90% of them, but it is cost effective, yet of good quality and sustainable for the environment.

How did you come up with the idea of frugal innovation?

We introduced the concept in 2009. My co-authors and I, at Cambridge University in England, were doing research on how Western companies could crack the emerging markets, which were fast becoming engines of global growth. Emerging markets have a lot of resource constraints. Many of them struggle with poor infrastructure, access to capital and natural resources. And yet we noticed that there are many entrepreneurs – especially in India and Africa – who are able to use their limited means to innovate and create economic and social value for the communities. They are frugal innovators. We covered this subject in detail in our first book – *Jugaad Innovation* – which came out in 2012. *Jugaad* is a Hindi word that means ‘makeshift’ or ‘make-do’, which is basically the ability to improvise an effective solution in a difficult situation.

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Can you give us some examples of these entrepreneurs in India who came up with interesting Jugaad innovations?

Our book offers a couple of very interesting examples. First is Mansukh Prajapati, a potter in India who developed a fridge that is made entirely of clay. It does not require any electricity, and it is 100% biodegradable. It uses the principal of evaporation to cool the inside of this so-called fridge, and costs approximately 20–25. It can keep fruits and vegetable fresh for several days. It is a great solution for people living in remote areas who do not get reliable electricity supply.

Another one is in the area of solar energy. Harish Hande is an Indian entrepreneur who founded SELCO, which installs small solar lanterns in some of the most remote parts of India with the belief that even poor people can afford solar energy. SELCO wants to democratize access to solar lighting and he has been doing it for 20 years. SELCO employs young locals in the villages to charge the solar lanterns in the morning. They then distribute the lanterns in the village houses and shops in the evening, so they can use it at night for reading and—if you are a shopper, you can use it to sell your goods at night. In the morning, they collect the lamps back along with micropayment for the amount of light they used the evening before. With this inclusive approach, SELCO was able to scale out its frugal solution to over 200,000 households in rural areas, in some of the most remote villages in India, while creating many jobs in local communities.

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Is the idea of frugal innovation only relevant for emerging markets or does it apply to developed nations as well?

I believe there is a universal appeal to the concept. Our first book offered Western multinationals best practices they can learn from emerging market entrepreneurs, and companies who were able to innovate more with fewer resources. We then spent the last three years studying frugal innovation in the Western context. From our findings, we published a new book called Frugal Innovation. This book argues that, since 2008, there is a big shift in the Western world – consumers have become increasingly value conscious, looking for products and services that deliver more value for less. Secondly, consumers in the West prefer to buy products and services from companies that are socially and environmentally responsible. A recent study showed that 55% of global consumers want to pay even more for products that are socially and environmentally responsible. And this number has been growing. More interestingly, nearly 70% of future employees want to work for companies that have this kind of social and environmental credentials.

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Today, consumers would rather opt for a relatively frugal solution that addresses their basic needs and represents more value(s) as well. Frugality is a lifestyle

that connects the need for saving money while doing the right thing for the society and environment. This need is growing especially among young people in the Western world. These trends have been forcing Western companies to rethink their innovation approach to serve frugal customers in their home markets.

Principles of Frugal Innovation – Working within Constraints to Create More Value for Customers and Society

What are the key principles underpinning Jugaad or frugal innovation?

The first principle is that you use what is abundant to create what is scarce. For instance, you use clay, a widely available and cheap material, to create something like a fridge that does not use electricity. You employ local people and turn them into your distributors instead of hiring employees. So, the question is ‘how do you create more impact using fewer resources’, the answer: you don’t create new things, you just piggy back and leverage what you already have. Reusing is indeed a sustainable alternative to “reinventing the wheel”.



What does it mean for companies and what is abundance for companies?

Abundance lies in the ecosystem. Companies must take a systemic approach – instead of operating with the sense of scarcity and thinking only about resources under their sole ownership, they must look at what's available in the whole ecosystem that they can access. For example, today if a company needs truck capacity, it can approach the marketplace called FLOW2. This is a B2B marketplace that enables companies to share idle physical assets, trucks, factory equipment, medical devices etc. In most cases, the system has more resources than you think when you look at it from a single person or a company perspective.

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Which other principles reinforce frugal innovation?

Using what is abundant to create what is scarce is our first principle. The second principle is to engage and iterate. Instead of wasting time and money trying to create a perfect solution in an insular R&D lab, companies must directly engage customers, identify their basic needs, quickly produce a good enough solution, and then iterate i.e. incrementally improve the solution as the

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customers' needs evolve. This practice is very frugal in terms of resources as well as time.

The third key principle is regarding sustainability. It's not about Corporate Social Responsibility (CSR) but how to make your entire company more sustainable. We have examples of companies like Unilever (its CEO, Paul Polman, wrote the foreword for our book), which is planning to double its revenues by 2020 while simultaneously halving the environmental impact. This is not just for one product or service. They are reinventing their core business model and entire value chain to produce more, and better, with less.

In the process, companies reuse, recycle but also up-cycle – creating more social value as well.

That brings us to the fourth interesting principle, which is about collaborating extensively with other companies – including your rivals – the notion of open innovation and “coopetition”.

Can you elaborate on the concept of open innovation?

Take, for example, the French Railway Company, SNCF. Their focus was on offering the best possible train services, but customer demands have evolved. People want an end-to-end mobility

solution that takes them from point A to B, irrespective of the modes of transport they may have to use – cabs, trains and car-sharing etc. SNCF realized this and has just launched a service aimed at this customer need. They're combining their services with partners – such as Zipcar and others – to provide a “door-to-door” mobility service. They are willing to share their client with other brands and companies. They understand that, by pooling resources together, they can serve the customer better and more comprehensively. Another example is Mars, the chocolate maker. Mars is sharing its fleet of trucks in Germany with other companies. They asked themselves: “if I am not using my assets all the time, they are sitting idle, I am basically wasting money. So, why don't I share them with other people?” I believe that gradually we will see companies sharing their fleet, their factories as well as their clients. This is the B2B version of the sharing economy, and it is just taking off.

“Renault is a very good example of a company that has been at the forefront of frugal innovation.”

Frugal Innovation can Make Corporations More Competitive

Can you explain how large organizations have implemented the concept of frugal innovation?

Renault is a very good example of a company that has been at the forefront of frugal innovation. In 1999, Louis Schweitzer, the previous CEO of Renault, set an audacious goal of building a 6,000

Innovating More with Less



The Traditional Innovation Approach is Broken



Expensive and Not Sustainable

Leading companies spend **over \$650 billion on R&D** every year



Declining Returns

Over **85%** of **new** consumer **products** launches **fail** in market



Rigid and Not Open Enough

Organizations need external partners to augment their innovation capabilities

What is Frugal Innovation?

High-quality solutions that are simple, effective, affordable and created with limited resources

Connects the need for saving money while being thoughtful for the society and environment

Key Principles Underpinning Frugal Innovation



Use what is Abundant to Create what is Scarce

For instance, pooling excess truck capacity and enabling access to it through a B2B marketplace



Engage and Iterate

Identify customers' basic needs, quickly produce a good enough solution, and then iterate



Sustainability

Reuse, recycle but also up-cycle – creating more social value



Open Innovation

Becoming more open and willing to share clients with the external ecosystem

Frugal Innovation in Practice



Renault Kwid – an entry-level car for the Indian market, designed in India, with **97%** of its components sourced from local suppliers. Entry range cars accounted for **42%** of Renault sales volumes in 2014.



SNCF, the French railway company, combining services with **Zipcar** and others to provide “door-to-door” mobility.



Mansukh Prajapati, an Indian entrepreneur, invented **MittiCool**, a fridge made 100% of clay, 100% biodegradable, consumes no electricity and costs roughly €20–25.

car and gave his engineers the freedom to handle the how part. That was the first chapter in the Renault story that led them to launch in 2005 the Logan – a no-frills yet spacious car that used 50% fewer parts than a typical Renault with a minimalist design that met high-quality and safety standards. To capitalize on the demand, Renault developed an entirely new entry-level product line under the Dacia brand. These entry-level vehicles now represent circa 40% of Renault's total sales.

The second chapter, being written in 2015, is the launch of Kwid – an entry-level car produced for the Indian market. The concept of the car was developed to a large extent by Indian designers in Renault-Nissan's design centers in India and very much relies on open innovation and local supplier network. Ninety-seven percent of the components in Kwid come through local suppliers. They involved the suppliers very early on – right from the design phase. So, the whole ecosystem was involved from the beginning until the end, and that is what allowed Renault to pull it off. Overall, Kwid is a very cost-effective solution as it cost them only half as much to take the car from design to dealers. Most Western carmakers cannot copy what Renault is doing because they try to take the existing cars that are being sold in Europe or US and 'de-feature' them for local markets in India and China. That approach does not work. They must learn to build a frugal car from scratch.

Do you have a view on an approximate percentage of companies using frugal innovation?

If you look at the Fortune 500 companies, I would say roughly 5% have adopted frugal innovation in a very aggressive way as they have realized its strategic importance. Approximately 20% are experimenting with it and the remaining 75%, I think, have very little awareness. If we look at Europe only, I would say there is an equal split across

the three categories. While in Asia, I would say nearly 90% of the companies are already using frugal innovation in some way. The US, however, is lagging way behind Europe and Asia in adopting frugal innovation.

Overcoming Obstacles to Frugal Innovation

What are the main obstacles to frugal innovation?

There are a few obstacles of course. The first one is mindset. Frugal innovation is viewed as an approach that produces only low-cost output and not necessarily a good quality product. The challenge is to convince people that something simpler with fewer features can be innovative. Actually, it is innovative because it brings more value to customers. So, the difficulty is to shift the R&D mindset from pushing more technology to really understanding customer needs and focus on delivering value to customers by creating a simpler solution.

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The second challenge is around marketing. How do you market a frugal solution as aspirational? I believe Renault is doing an amazing job in India in terms of marketing Kwid. They are not talking about affordability. They are positioning

the car as something aspirational, like the car gives you more freedom and comfort. It is well designed and makes you feel good. Most companies know how to market an expensive product and create a need for it but they do not know how to create a need for frugal solutions.

How important is it to change the culture of a company for ensuring success with frugal innovation?

I think changing the culture of the company is absolutely critical. In Renault today, nobody is challenging frugal innovation because it has proven to be successful in Europe and now in India. So, companies need to evolve from “doing frugal” to “thinking frugal” and then finally to “being frugal”. Our research shows that it takes approximately 8–10 years for a company to make the complete transition, which is a long journey. But, if you look at companies like Renault, I think they have proven that if you can patiently execute the strategy over 10 years, you can become a leader in the space. I believe more companies have to realize that frugal innovation is not just about low cost. It is about combining four attributes – affordability, quality, sustainability, and simplicity. It is about improving people's quality of life while preserving our precious planet.

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Navi Radjou is a Fellow at Judge Business School, University of Cambridge and an innovation advisor based in Silicon Valley. He has served as a member of the World Economic Forum's Global Agenda Council on Design Innovation and is a regular columnist for Harvard Business Review. In 2013, Navi Radjou received the prestigious "Thinkers50 Innovation Award", which is given to a management thinker who is reshaping the way we think about and practise innovation. Navi Radjou is the co-author of a new book – Frugal Innovation – and co-author of the bestseller 'Jugaad Innovation'. Capgemini Consulting spoke with Navi Radjou to understand how enterprises can apply principles of frugal innovation to innovate more with fewer resources and yet deliver greater customer and social value.

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