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Butterly brilliant

He didn't like milk and he didn't drink it, he said in his last interview. I don't like milk either, but it gets a lot more interesting when the man speaking was probably more responsible for the milk that Indians drink today than anyone in history. Verghese Kurien was the Amul man, the man who launched what is sometimes called the 'White Revolution' in India. Milk production is one of India's great success stories. The per capita availability of milk in India has doubled in the last 50 years, despite the trebling of the population, and we have gone from being a milk-deficit country to one that exports milk powder, in the process changing the entire economics of the dairy industry and bringing a little bit of extra prosperity into the lives of the 11 million mostly poor people who are members of milk cooperatives all over the country.

Yet when he died a few weeks ago I was struck by the rather desultory way his death was reported in the English language press — cute headlines — 'India's milkman...' but short and lifeless stories. It was hard to avoid a comparison with Steve Job's sad passing almost exactly one year before. It is true that while Kurien was given ample time to look back on his achievements, Jobs was taken away at his prime, which obviously adds an extra tragic dimension to his story, but the stories on Jobs were also much more concrete in their appreciation of his achievement (and much more unabashed in their adulation).

As a Mac user and someone who has spent many years lusting after iphones and other pieces of technologically advanced jewellery that Jobs crafted for us, I have no reason to belittle his achievements, but it is worth asking whether it is inherently more difficult to appreciate innovation when it changes the process rather the product.

Think of the problem that Kurien had to solve: a lot of the milk in India comes from dairy farmers who have just a few cows — often just one cow that is giving milk at any point of time. And they usually live in places that are many miles from the nearest small town and often hundreds of miles from the state capital or other major metropolitan centre, which, given the quality of rural roads in the 1950s or even the 1980s, would mean many hours of travel to take the milk to the market. At the temperatures that are normal in much of India for most of the year, this would obviously risk spoilage unless the milk was refrigerated, but how could it make sense for someone with a few litres of milk to sell to buy a refrigerated truck (even if they could afford one). Unfortunately the alternative was selling the milk in the village, where lots of people had cattle and few wanted more milk.

At one level there was nothing particularly surprising about the solution: get all the cattle owners from the village to bring the milk to a single collection point in the area from where it could be shipped out together. The challenge was in getting all the details right: what do you do with the milk that has been collected while waiting for the rest of the village to bring in theirs? Chilling the milk would save it from spoiling while they waited, but how do you chill milk if there is no power connection (in the 1950s and 60s very few Indian villages had electricity). How do you get the cattle-owners information about the necessary injections, the latest feed or the right kind of mates for their cows? Or at a more mundane level, how do you make sure that the collection points are open when the farmer shows up with his milk and that the truck to take the milk to the processing plant is not late? More generally, how do you build a brand with a reputation for quality based on the production of a thousand

independent cooperatives, who must all be tempted to dilute their milk?

And remember all of this had to work, and work well, in more than a hundred thousand villages from Gujarat to West Bengal. Any slippage could be very costly if it made some farmers lose faith and stop bringing in their milk, or if buyers started questioning the product — the whole system, based on strength in numbers, would then start to unravel.

It is true that Kurien, as the chair of the National Dairy Development Board, did not actually run most of these cooperatives — but then how often did Jobs visit the Apple factories in China? Like Jobs, Kurien had to produce the right prototype that could then be replicated many thousand-fold. Unlike Jobs, his prototype could not be replicated in a single large factory but had to be robust enough to be recreated village by village in a hundred thousand villages.

The point here is not at all to minimise what Jobs accomplished — there were just so many good ideas, from the Apple II to the iPad, and there was a perfection to them that could not have been even an option for Kurien. In a sense it is precisely this imperfection, combined with the sheer mundaneness of much of what it takes to make things work on the ground (how many milk pick-ups a day, Zaffarabadi cows or Surti cows, and so on...), that makes it challenging to identify and support (and write about) the great innovations that change the lives of the poor. But Amul has done so much more for the lives of the average Indian than Apple that we cannot afford to not take up the challenge.

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