



Can India Lead Through Innovations?

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Many recent news reports about India and Indians make me ponder about if India can lead through innovations. The latest one giving hope came due to the person of Indian origin who shared the Nobel in chemistry this year. An interesting statement by Venky Ramakrishnan made after becoming Nobel Laureate reinforced my hope. "There are lots of good scientists in India but I notice the press is hung up about these Western prizes like the Nobel Prize instead of appreciating the excellent work they (scientists) are doing within the context of India." Unfortunately, we hardly come to know about the scientists and their works, as the media hardly cover anything but those unscrupulous politicians and their activities. Why can't the news magazines such as 'India Today' and 'Outlook' or business magazines come out with some special issues covering the innovations in India and the big players in innovation from industry as well as institutions of excellence?

As a routine subject of discussion that follows the announcements of Nobels every year, the media has many reporters and columnist raising the question 'if Indians in India can win Nobel' and providing their own answers.

Interestingly a new study became handy in time to emphasize and encourage Indians about the possibility. According to a study, conducted by British firm Thomson Reuters, and published as 'Global Research Report: India', "In the last decade, India has seen a substantial growth in its annual output of scientific publications. India's research productivity will be on par with most G8 nations within seven-eight years and overtake them between 2015-2020." But many well-wishers including NR Narayana Murthy are skeptical about the growth of innovations in India. Perhaps Mr. Murthy has sufficient reasons to be negative which is not. One reason may be the reports on the rankings of the Indian universities that hardly provide any hope. Even a recent ranking expressed the similar view. According to the QS/Times Higher Education rankings, 'none of the Indian universities figure among the top 100 varsities of the world'. And naturally one of the pet excuses is the lack of funding.

However, I have some other reasons to be hopeful. At least few recent news reports about the technical capabilities of Indians working in the country support my hope. The news related to the finding of water traces on moon by Chandrayan-I was one. According

to Chairman of the Indian Space Research Organisation (ISRO) G. Madhavan Nair, the Chandrayaan-1 detected water on the lunar surface as early as June 2009. The indigenously developed Moon Impact Probe (MIP), which crash-landed at a designated site on the lunar South Pole on November 14, 2008, picked up "clear signatures" of water during its 25-minute descent. Analysis of the data from a mass spectrometer on the MIP pointed to the presence of water. This finding was later "confirmed" by the Moon Mineralogy Mapper (M3), which was supplied by the United States.

Another landmark research related to genetics. It has revealed that nearly all Indians carry genomic contributions from two distinct ancestral populations. Following this ancient mixture, many groups experienced periods of genetic isolation from each other for thousands of years. The study has medical implications for people of Indian descent. Samir Brahmachari, a geneticist of repute and CSIR's director-general says, "India is among the first country to do a diseases-specific, drug-response mapping on large populations which gives us risk analysis and benefits."

Besides the facilities of CSIR and DRDO, the scientists and technocrats in huge number of research facilities of the country running in thousands are busy in their pursuits of innovations. But the potentials are still more. The rush of the multinationals to open its R&D centres in India and the performance of some who are already established are proofs of the talents of Indians and potentials.

It requires only course corrections with the necessary change in the mindsets. I wish PM could have a CTO for the country too. Perhaps, persons like Nandan Nilekani, Sam Pitroda, or someone would have been more suitable for this bigger responsibility.

Just to give one example of the potentials, each IIT must have 'an Institute of Science' integrated with it in its campuses to have basic researches in applied and pure science. On similar lines, the big business houses would have supported an independent R&D institute to serve the sector. Can't Tata Steel or for that matter Anil Agrawal set up dedicated R&D facilities for metal related researches?

Innovations in every field can only take the country ahead. However, it requires synergy to show fast and effectively impressive results. I was going



through an article about the grassroots innovations from the rural India. I am sure if the big industrial houses take interest in some of them and fine tune it,

the result will be wonderfully unique and commercially successful products for even global market.