

PETTY PATENTS CAN BOOST R&D

Relevant for: Science & Technology | Topic: Achievements of Indians in science & technology

The patent filings by Indian enterprises and other institutions have increased from 8,841 in 2011 to 23,141 in 2020. | Photo Credit: Getty Images/iStockphoto

Innovative activity is the key driver of competitiveness and economic growth. In that context, India's rank of 46 in WIPO's Global Innovation Index (GII) 2021, up from 81 in 2015, is encouraging. This finding corroborates an earlier one by UNCTAD in its Digital Economy Report 2021 where India was seen as exceeding expectations. While these findings are encouraging, India, which aspires to emerge as one of the largest economies of the world, needs to move up further in the innovation rankings, for building self-reliance in technology, especially in the context of the incipient digital revolution. China occupies the 12th rank in GI, ahead of Japan at 13th. This shows that it is possible to move up the ladder with sustained effort.

India has much room for enhancing its innovative activity. Among the key indicators, gross R&D expenditure (GERD) as a percentage of GDP at 0.7% is low. It needs to rise to upwards of 2% of GDP, as in the leading innovative nations. Furthermore, only about 30% of the GERD is spent by business enterprises, despite the generous tax incentives offered by the government. This suggests that Indian enterprises have not got into an R&D culture, not to talk of innovative rivalry. The bulk of innovative activity is conducted by a handful of companies in the pharma and auto sectors.

What can be done to boost the R&D activities of Indian enterprises? Given the strategic importance of innovative activity, governments in developed countries spend billions of dollars on R&D subsidies given to national enterprises to shore up their competitiveness. Subsidies up to 50% of project costs have been made non-actionable under the World Trade Organization rules. In India, R&D activities have been encouraged mainly through weighted tax deductions. Partial funding for specific R&D projects undertaken by business enterprises may be desirable to develop products or processes, thus strengthening competitiveness.

Funding support for R&D activity of business enterprises may help to direct it to a desirable direction or field. For instance, it may be used to promote capability building for new products, process innovations for local or global markets, focus on enhancing ecological sustainability, promote industry's linkage with public-funded research laboratories and universities, and so on.

A generous programme is needed to push R&D activities of enterprises through partial funding for viable R&D proposals of industry to strengthen India's competitive edge. Besides, products based on indigenously developed technology could be given production tax concessions (such as those extended to small-scale industry products) and income tax concessions (such as those enjoyed by export turnover) to encourage innovation.

The number of patents registered by residents is another indicator of innovative activity. The patent filings by Indian enterprises and other institutions have increased from 8,841 in 2011 to 23,141 in 2020 (WIPO). However, patents granted have been only 776 and 4,988 respectively. Although the ratio of applications to grants has gone up over the years, many patent applications fail to satisfy the three-pronged test of novelty, inventive step and utility. In that context, another policy to promote local innovation could be to protect minor innovations through the so-called utility models or petty patents, as has been done by several East Asian countries. The patent system fails to encourage minor innovations since the criteria for inventiveness tend to look at the novelty of the invention. The experience of several East Asian countries suggests that petty

patents and industrial design patents could be effective means of encouraging domestic enterprises to undertake minor adaptive innovations and foster an innovation-based rivalry among them. India should consider adopting a petty patents regime that provides limited protection to minor incremental innovations made, especially those by MSMEs, often called jugaad. The utility models or petty patents typically provide a limited period of protection (5-10 years in contrast to 20 years in case of patents) and have less stringent requirements and procedures. Incentivising minor and incremental innovations through limited protection under utility models will help to foster the innovation rivalries among firms, particularly MSMEs, paving the way for more significant innovations by them in the future.

Also read | Battles over patents

India's rising rank in the global innovation league suggests its potential, opportunity, and stakes in boosting the R&D culture among business enterprises to strengthen their competitiveness. R&D funding and petty patents could foster these.

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