

Innovation Development Model for India

Pradeep Mishra

The need to raise the global competitiveness of the Indian manufacturing sector is imperative for the country's long term growth. The National Manufacturing Policy seems to be by far the most comprehensive and consequential policy initiative taken by the Government of India till date. The policy is the first of its kind for the manufacturing sector as it addresses areas of regulation, infrastructure, skill development, ease of doing business, exit mechanism and other pertinent factors related to the growth of the sector. What is absent in the approach is Innovation that lies at the center in the domain of any manufacturing sector.

There lie a lot of disparity between firms and nations across globe on field of innovations. Some firms like GE, Ford Motors are working towards building exnovation strategy while others are still playing their cards around building platform of disruptive innovations. For India to lead in the field of manufacturing sector has to take leap jump in building innovative ground for future.



Exhibit 1- Innovation process

The major differentiating factor between first world countries (US,UK etc) and third world countries (India, Africa etc) is the economy which can be attributed to scientific marvels those nations have master on others. In last 200-300 years most of the inventions in science and technology have been done by these first world countries and they had an advantageous lead than any other country in the world.

Today India is projected as a low cost manufacturing destination, in actual it is not even core manufacturing but only assembly process which are being offloaded to India. Policies like SKILL INDIA etc will definitely be required for providing the talented human resources to this sector. However referring to PIM model below it is clearly evident that India is picking the low hanging fruits, whereas there lies a bunch of bigger opportunities which if engaged by innovation can reap multiple benefits.

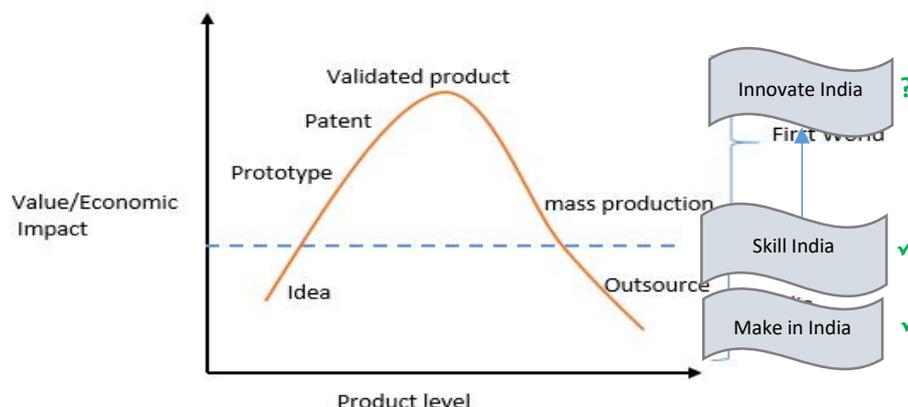


Exhibit 2- Product innovation maturity (PIM) cycle

The innovation seed can be germinated by cultivating the roots of education in a nation. India needs to move away from copying education from west and customizing it for India. Rather it should give free hand to inculcate creativity in the society. The innovation mind mapping shows some of prominent areas where

government should work which includes the most important building block of any nation i.e education, moral, standards etc. The Education Policy amendment should be the first thing India should do to become Future ready.

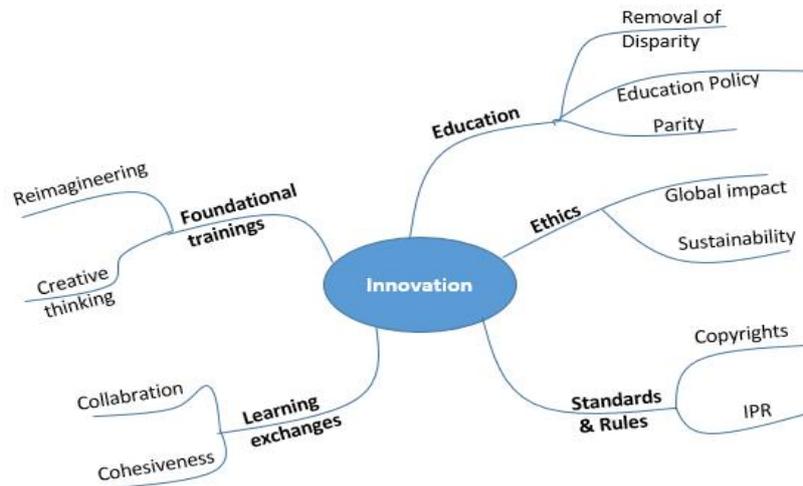


Exhibit 3- Innovation mind map

How to Innovate:

Innovation can be classified in to regular, continuous small improvements or disruptive innovations.

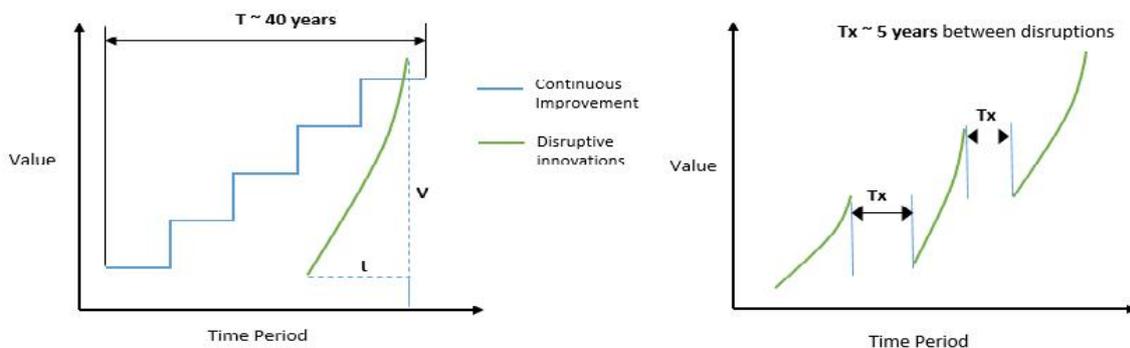


Exhibit 4 – Innovation process (i) Continuous (ii) Disruptive

India invested decades in doing small improvements and continuously innovating process and products as shown in above illustrations (i). However the need has changed today and we need now to innovate disruptively which means going beyond the conservative way of innovating thinking and use the mind power for new and more efficient process/products/services.

Two great sayings which should be revisited again :

“Donot Reinvent the Wheel”– contrary one must reinvent the wheels, as who knows probably the wheel is not the best inventions human have done till now. Nature is the best creator and all our inventions are driven by the nature’s creation. We have build homes like animals make, we made colonies like bees and ants make. We made aero plane after getting inspired by birds etc. we made bullet train inspired by kingfisher. we designed drones based on maple leaf. Invention of Velcro was attributed to burdock’s seeds . These all proves

that we are copying the engineering from nature for the development of human race and in that too, we are very slow.

No ground animals use wheels for transportation, they all have limbs to run, so how can be Wheel the most efficient. Think !

“Think out of Box”- contrary why Box itself, think without any box, let your imagination combine with the thoughts and creativity and some important product/process chain will be born.

From a 1.2 billion country can’t we churn out the innovators, thinkers, creators rather than producing pool of coders, software engineers and doctors who serves for the first world economy. Innovation happens where there is liberty of thoughts, openness in thinking and motivation for doing.



Exhibit 5- Innovation elements

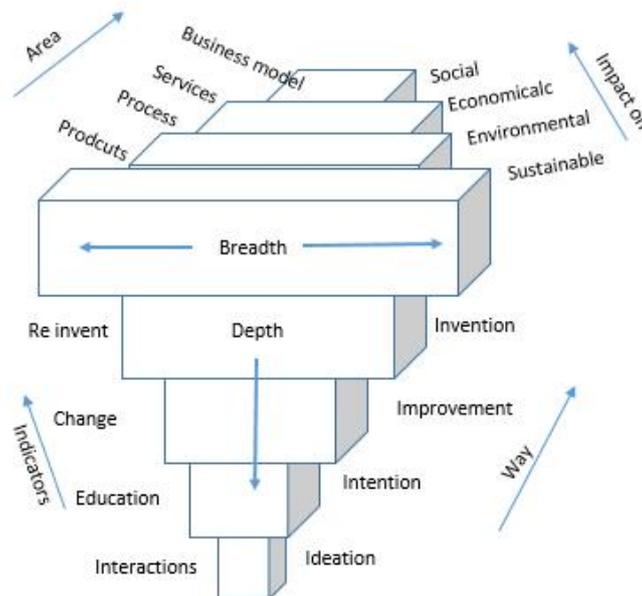


Exhibit 6- B-D model for driving Innovations

The above illustration presents the innovation breadth and depth model also known as B-D model. India needs to reap the benefits of both continuous improvement and also find its way towards disruptive innovation techniques. The above model balances the requirements for Indian market. Any policy relevant to Innovation in India should circulate around the key scopes being defined in the B-D model of driving innovations.

This is the need of the Hour, which as global citizens of India, we need to understand and act.