

# Need for Open Innovation in India

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**Abstract**— *Most of the companies in India have started Research and Development divisions, and R&D work is one of the most expensive investments in Industries in India whose outcome is unpredictable. It may end up in a great loss to those organization in terms money, manpower, time and others resources. Even though there is an increasing number of post graduates, there is only a few who continue with their doctoral Education, mostly because of less encouragement in this area by the government, and this again add up the cost for human resource in the R&D work. Moreover, such a research work is not affordable by small and medium scale companies. Hence the idea of Open Innovation is the apt solution for this problem in Indian Industry.*

**Keywords**-Open Innovation, Research and Development, patents

## I. INTRODUCTION

According to Henry Chesbrough (2003) Open innovation was defined as the use of purposive inflows and outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation, respectively. Hence open innovation is the platform where different companies can share their knowledge about a particular product in order to make a good outcome without revealing their confidentiality. As there is an increasing number of research and development works in India and most of them result in failure, collaborative innovations have a vital role to play here.

Many companies feel that the concept of open sourcing may result in the misuse of their Intellectual Properties (Ips) and hence they confine their R&D activities in a confidential manner. But this is a misconception among industries. With better planning this problem can be solved and science, technology and innovations can be integrated to a great extend.

## II. RESEARCH AND DEVELOPMENT WORKS IN INDIA

As per British Council's 'Understanding India' (2014), there is very small of of PhD enrollment in India, resulting in lack of high quality researchers and there are only few opportunities for interdisciplinary and multidisciplinary working among science, Technology and Innovations. A long gap between the Institution-Industry relationship had made research works

more expensive. Moreover, The weak ecosystem for Innovation in the Indian research Institutes causes lack of development for faculties and students in the areas of innovations and hence have few industrial links. This outweighed Indian universities from world university rankings.

It is said that India is facing a Undergraduate boom but research gloom; there are around 14.6 million students enrollment to graduate studies. In contrast, India have only very few students continue on to research degrees compared to other countries: only 1,40,000 (1%) students enrollment. This is mainly due to the thought among youngsters that the research studies are a waste of time. Getting a white collar job after graduation is what most of them preferred. The line graphs below compares the data on the changes in the expenditure in US dollars for the exchange of Intellectual Properties between and various other countries in the world over a 10-year period from 2003 to 2013.

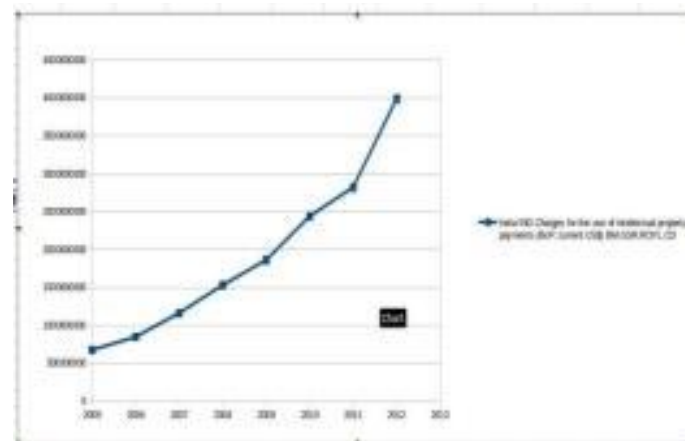


Fig. 1: Charges for the use of intellectual property, payments

Generally speaking, expenses for the use of Intellectual property have increased world wide. There is an continuously increasing trend in the payments from India for its use, whereas, receipts by India follows an increase through a zig-zag path. IP from expense were least during 2006 and then which rose to a high value. Both the values peaked during 2013, and the trend helps us to predict that the money spend on IP exchange will rise further in

upcoming years.

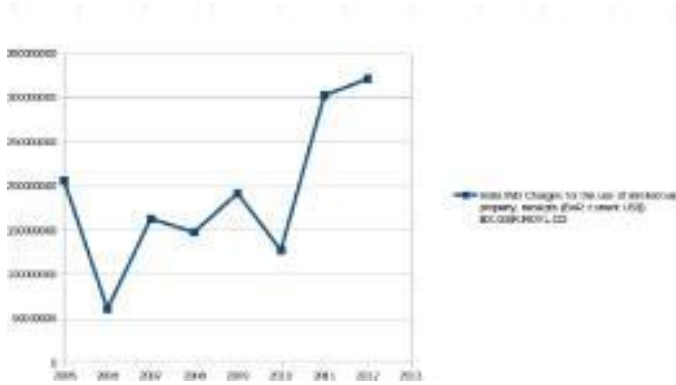


Fig. 2: Charges for the use of intellectual property, receipts

Open Innovation can help to share the Ips free of cost among the countries. Recognizing that innovation is necessary for long term economic growth of the country, Government of India have come up with many policies to promote R&D works. As per white paper on 'Stimulation of Investments of Private Sectors into R&D in India' a report of The Joint Committee on Industry and Government (JCIG), 68% of total R&D expenditure is in public sector, while private contributes only 30%.

The line graph illustrated highlights the money spent on Innovation activities in India over a period of 10-years from 2003 to 2013

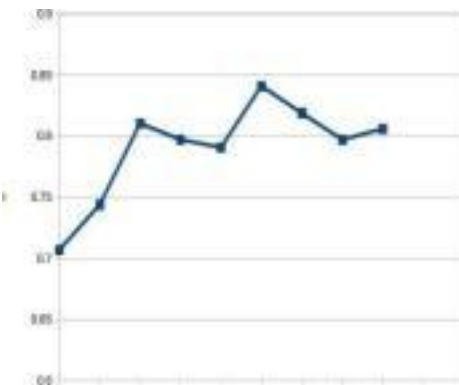


Fig. 3: Research and Development Expenditure in India

To be general, R&D works have become more expensive, there is a high demand for researchers in this area. These increasing R&D expenditure is a threat to SME (small and medium Enterprises) and start-up companies in particular. Research and development activities are the prime work done prior to manufacturing stage, and hence open innovation will be an aid to SMEs and start-ups to get thing done faster.

### III. CONCLUSION

It is obvious from above discussion that the collaborative

innovation is necessary in the Indian Industries, government need to promote such activities. I have seen that there is a boom in number of research institutes like Central Science and Research Institute (CSIR) but yet those research works are linked to the companies to manufacture innovative products. If the budding researchers of our country are properly rewarded and promoted, undoubtedly the talented youth will enroll into innovation activities like open innovation and this in turn will reduce the R&D expenses.

As one step forward to solve this issue I am going to launch program called open innovation challenge with the help of International Centre Technological Innovations (ICTI) where companies can post the project requirements and successful innovators who come up with the apt solution within the deadline may be rewarded by the companies on the monetary basis or any others like job offers, internships etc. This will reduce the R&D expenses of the companies especially SME (small and medium Enterprises) to a great extend. I have got a database of 15,000 plus Engineers and 3,000 plus MBA graduates who have got an experience from one to five years. A part from that this network will act as a platform where companies can get appropriate talents to make job offers through such challenges. This collaborative innovation problem will definitely help students from professional colleges to connect with the industries and to find an internships and even a job during their study time itself. In fact, many of the companies have welcomed this approach and are ready to post their challenges.

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