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Patent Laws and Global Innovation Index: Need To Recognise Jugaad Innovations in India

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ABSTRACT

Considering the sluggish growth in the Global Innovation Index (GII), a vast country like India needs both formal as well as informal innovations to improve its ranking. Improving the ranking would result in more investments and job creation because India will be seen as an 'innovation friendly country.' The IP regime is one of the most viable options India can use to promote innovations. In India, majority of the innovations fail to satisfy the rigid criterion under patent law to qualify for patent protection because they are generally minor improvements or Jugaad Innovations. The inventors find patent protection to be a costly affair and do not opt for patent protection. Patent laws should act as an encouragement to the innovators not vice versa. With the passing of time, the need to grant utility patents has increased significantly. Indian patent law's inability to grant utility patents is a major cause for low number of patent applications being filed in India. Therefore, India should protect Jugaad Innovations under Utility Patents as to promote innovations at the grassroot level. A comparative study of different countries can also help India identify the obstacles in the promotion of innovations.

I. INTRODUCTION

The Global Innovation Index measures the innovation performance of more than 125 countries around the world. Recently, the WIPO released the Global Innovation Index, 2019 where India stood 52nd among 129 countries.[2] Although India improved its rank from 57th to 52nd and also stood higher in lower middle income category but the growth of India is disappointing considering the large GDP and population. Studies show that intellectual property regime is one of the pillars of an Innovation Economy. This paper strives to set in context global indicators for innovativeness at an economic level to shed light on India as an Innovation Economy.

The role of Intellectual Property regime is, no doubt, significant in promoting innovation by providing incentives to those who undertakes to work out inventions. This paper focuses on

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[2] The Global Innovation Index 2019: Creating Healthy Lives - The Future of Medical Innovation, Cornell University, INSEAD, and WIPO, Available at: https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2019.pdf.

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the ways to improve the global ranking of India by finding out policy loopholes in the Indian IP regime. The paper focuses on the obstacles faced by inventors in patenting their inventions and how these obstacles act as a deterrent to India becoming an Innovation Economy. The need of utility patents is also highlighted to show the benefits of the utility patents in promoting innovations at the grass root.

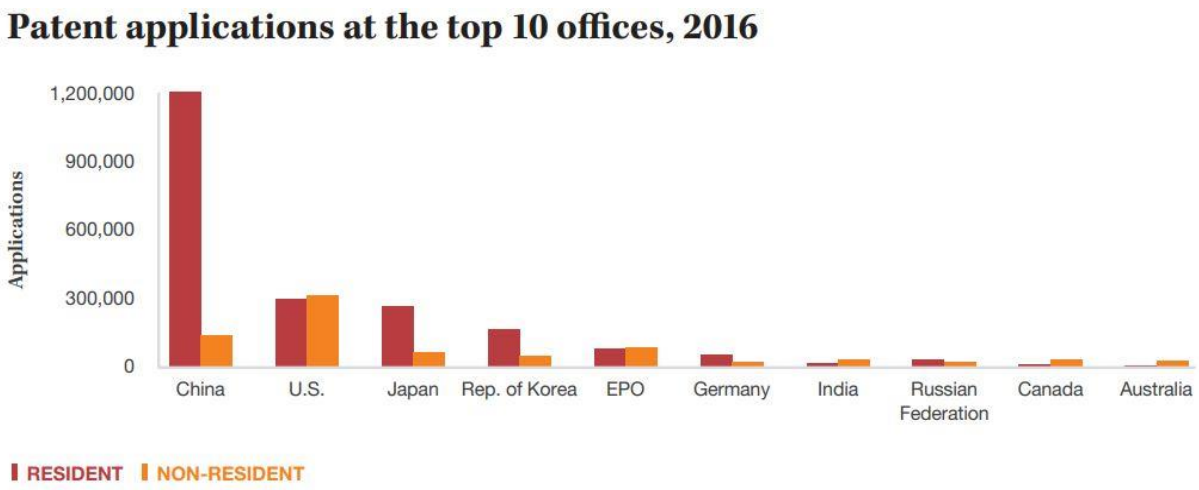
The paper also seeks to throw light on different jurisdictions so as to identify the obstacles in the improvement of standing in the said index. The Author is of the view that it is the high time that we provide incentives to our small inventors by giving them legal protection for their inventions and by not following the stricter norms in patenting the inventions. Moreover, an analysis has been undertaken by the author to show how other countries adopted the utility patents and improved their standings. This will demonstrate the practical implications of the proposed policy changes. The Global Innovation Index has been carefully analysed by the author in order to have an in-depth analysis of various indicators of the Global Innovation Index. Along with utility patent system other suggestions are discussed by the author in each section of this paper.

II. Obstacles in the Intellectual Property Regime Discouraging Innovations

Intellectual Property protection plays an essential role in promoting new inventions as the inventors feel confident that their inventions will be protected and will not be illegally copied by others. It is the concern of the intellectual property creators that after investing time and resources on the invention, the resultant invention should be protected against illegal use. The TRIPS Agreement has provided for minimum standards for the protection of intellectual property. India has also made its IP regime in consonance with the TRIPS but the Indian Patent regime provides for a cumbersome procedure for claiming protection for any invention. Therefore, flexibilities are needed to provide protection to small inventors.

The obstacles posed by the patent system of India can be understood by the number of patent applications filed by the inventors. According to the data collected by the WIPO, Chinese Patent Office has received the most number of patent applications. India on the other hand has received less number of applications and among the applications received most of the applications were filed by non-residents.[3] This suggests that the Indian inventors are not incentivized like that of the Chinese and US inventors.

[3] World Intellectual Property Organization (WIPO) (2017). World Intellectual Property Indicators 2017. Geneva, Switzerland. Available at: http://www.wipo.int/edocs/pubdocs/en/wipo_pub_941_2017.pdf



It was also highlighted that the average pendency time from first office action to final decision in India is higher as compared to other countries.[4] This suggests that the procedure adopted by Indian Patent Office is time taking. As a result, the innovators get discouraged to pursue their patent applications. The time taken for protection sometimes exceeds the time taken for the invention. These are all technical barriers to the protection of IP and Indian government should take necessary actions to provide incentives to inventors.

World Economic Forum released a Report called Global Competitiveness Report, 2017, according to this report, India was ranked 52nd among 137 countries in the 'Intellectual Property Protection' (sub-indicator of Global Competitiveness Index).[5] The Author is of a view that patent protection is one of the crucial indicators of an innovation influenced economy. The level of protection afforded to the inventors directly affects the number of inventions in any country. It is a matter of grave concern that in spite of due efforts made by Indian government in association with DIPP the intellectual property regime lacks implementation and proper protection to the inventors.

Another obstacle in the promotion of innovations in India is the lack of research and development. According to a data collected by the World Bank, India's expenditure on research and development forms only 0.62 percent of the GDP which is much lower as compared to other developed countries.[6] Moreover, patents are not given to inventions related to computer programme by itself. This discourages the IT related inventors to innovate new and useful computer programmes.

[4] *Id.*
[5] World Economic Forum (2017). Global Competitiveness Report 2017-18. Available at: http://reports.weforum.org/global-competitiveness-index-2017-2018/competitiveness-rankings/#series=EOSQ052
[6] The World Bank, Research and development expenditure - India, Available at: https://data.worldbank.org/indicator/GB.XPD.RSDV.GD.ZS?locations=IN.

A study by NITI Aayog shows the importance of an adequate regulatory structure to promote innovation. It was also highlighted by the NITI Aayog's Report that the lack of enforcement in intellectual property regime is resulting into lack of confidence to invest his time and resources by the innovators.[7] It is also a matter of concern that long pendency of patent applications results in inventions becoming useless with time. These obstacles act as a deterrent for any innovator who is otherwise ready to invest his time, money and resource for working out an invention.

On the other hand, the government is working hard to promote the inventions by its various schemes and programmes such as 'Make in India' and 'Startup India'. The department responsible for IP policies, DIPP has made in its National IPR Policy, 2016, very clear that stimulating innovation is one of the objective of its national policy.[8] The motto of the National IPR policy is also "Creative India; Innovative India". The NITI Aayog has also made it clear that robust IP regime is needed to promote innovations in India. Thus, the government has to work hard to achieve the desired goals.

III. NEED FOR UTILITY PATENTS TO PROMOTE JUGAAD/MINOR INNOVATIONS IN INDIA

As it is seen, the patent process in India is a cumbersome procedure which results into less number of inventions. The patent application takes years to process meanwhile the invention lose its usefulness and novelty. Utility patents acts as an alternative to the cumbersome procedure for regular patents. Utility patents are given to inventions with lower inventiveness and not to highly complex inventions. Generally, utility patent model has a speedy procedure involving low cost. This can definitely benefit the small inventors who want protection for their inventions. It allows them to secure quick and cheap protection for those inventions which falls short of patentability under normal patent system. China has also allowed for utility patent protection keeping in view the smallest inventors.

It is also believed that for getting higher innovation output, countries can opt for utility model of patent protection. As the standard of inventiveness in utility patent model is lower as compared to normal patent model, the examination period also get reduced as to large extent.[9] The need for utility patents has been deliberated upon by the Indian government along with

[7] NITI Aayog (2015). Report of the Expert Committee on Innovation and Entrepreneurship. Expert Committee Recommendations Report, NITI Aayog. Available at: http://niti.gov.in/writereaddata/files/document_publication/report%20of%20the%20expert%20 committee.pdf.
[8] National IPR Policy, Government of India, 12th May 2016, Available at: http://dipp.nic.in/sites/default/files/National_IPR_Policy_English.pdf.
[9] Protecting Innovations by Utility Models, Available At: https://www.wipo.int/sme/en/ip_business/utility_models/utility_models.htm.

DIPP but it did not result in the inclusion of utility model system in the current intellectual property regime of India. Although it can be said that till date, there has been no effective deliberation by the Indian government.

Nagesh Kumar, who has done an empirical study on patenting in certain Asian countries, argued that Japan at the beginning had a very weak IPR regime. However, it adopted the utility model system to support the incremental innovation in the country. It resulted into more and more inventions in Japan.[10] On the other hand, it is argued by many scholars that stricter patentability criteria are needed to maintain quality of inventions. Even in China scholars have argued that utility patent models are to be limited so that the quality of Chinese patents can be improved.[11] It is also said that Chinese utility patent system is destroying innovations in China.[12]

It can be said that arguments are there on both the sides about the need of utility patents. Now, it is upon the Indian government to decide what is suitable for our country. Effective deliberation is the need of the hour. The government can call for suggestions from IP experts which would be fruitful in reaching conclusions about the proposed policy changes. A mixed system of utility patents can be devised where both the aspects can be taken care of. The patentability criteria can be made less strict with maintenance of quality inventions. Lessons can be learnt from different countries and in particular from China in order to reach conclusions about the need of utility patents.

IV. NEED TO PROTECT JUGAAD INNOVATIONS IN INDIA

According to the Oxford Dictionary, Jugaad means "a flexible approach to solve a problem that uses limited resources in an innovative way."[13] These innovations are also called grassroot innovations. The current patent system is regarded as favouring the formal sector of the economy that can commercialise their innovations. The informal sector which forms around 80% of the Indian Economy is left ignored. The jugaad innovations are, generally, developed in an informal sector in order to find solutions with limited resources. The Tata Nano car can be said to be a great example of Jugaad Innovation.[14]

[10] Kumar, N, *Technology and Economic Development: Experiences of Asian Countries, Commission on Intellectual Property Rights Intellectual Property Rights*, 38(3), ECONOMIC AND POLITICAL WEEKLY, pp. 209-215 & 217-226 (2002).
[11] Yieyie Yang, *Reforming the Utility Model System in China: Time to Limit Utility Model Patents' Scope of Protection and Improve the Quality of Chinese Utility Model Patents*, 42 AIPLA Q. J. 393 (2014).
[12] Mark Shiqian Zhai, *The Chinese Utility Model Patent is Destroying Innovation in China*, 39 AIPLA Q. J. 413 (2011).
[13] *Jugaad*, Oxford English Dictionary (2019).
[14] Gaur, Loveleen & Sahdev, Supriya. *Frugal innovation in India: The case of Tata Nano*, 10 INTERNATIONAL

At this level, the innovators are not in a position to afford the patenting of innovations. They find the regular patent system as very costly and time taking. They are not aware of the IP procedures which are technical in nature. As a result of their lack of knowledge protection for these innovations are hardly claimed. And, if protection is claimed in such cases, these innovations fall short of the patentability criteria. Therefore, it is suggested that these innovations can effectively be addressed by way of utility model system of patents.

Erika Kraemer and Sacha Wunsch-Vincent[15] in their book argued that *sui generis* system for informal sector is needed to promote innovations. They highlighted the practical problems faced by the informal sector in claiming patent protection. They argued that existing formal IP schemes such as patents may not be relevant to informal economy actors. Innovations may not meet the threshold requirements for formal IP registration. They may also face financial, cultural and social barriers while claiming patent protection. Moreover, established institutions may not be receptive to inventions from the informal economy.

The Indian Government has formulated the National IPR Policy, 2016 which proposes to establish support system for informal sector innovations. The commercialisation of these innovations will be supported by a scheme.[16] Although, this policy fails to identify that majority of the innovations are minor improvements and could not satisfy the regular patentability criteria. Practically, even if there is support and less patent fees then also strict patentability criteria will act as a deterrent. So, if the government is really serious about promoting these innovations the patent regime has to be made less strict.

V. CONCLUSION AND SUGGESTIONS

As it is discussed, India is struggling to improve its ranking in the Global Innovation Index. We may have to look into the factors which determine these rankings. The Global Innovation Index determines the rankings on the basis of seven factors of an economy. These factors are: a) Institutions; b) Human Capital & Research; c) Infrastructure; d) Market Sophistication; e) Business Sophistication; f) Knowledge and Technology Outputs; and g) Creative Outputs. If we carefully analyse the report, we may find that India is doing good in terms of factors (d) and (f).[17] On the other hand, India is lacking behind on other factors. Therefore, we need to focus on these factors.

JOURNAL OF APPLIED ENGINEERING RESEARCH, 17416 (2015).

[15] KRAEMER-MBULA E & WUNSH-VINCENT S, THE INFORMAL ECONOMY IN DEVELOPING NATIONS, (Cambridge University Press), 2016.

[16] Gautam Sharma & Hemant Kumar, *Exploring the possibilities of Utility Models patent Regime for Grassroots innovations in India*, 23 JOURNAL OF INTELLECTUAL PROPERTY RIGHTS, pp 119-130 (2018).

[17] *Supra* note 1.

Institutions, Infrastructure and Creative Outputs are the factors where we have performed badly. As far as Institutions are concerned, we need to work on the political environment suitable for business, regulatory environment and the overall business environment. So we need to work on a favourable environment for innovations. Secondly, we need to work on the Infrastructure where we can focus on ecological sustainability and on information and communication technologies. Lastly, we need to focus on the 'creative outputs' where we need to provide flexibilities in the IP regime and promote the inventions.

This creative output is a matter of concern for our discussion. It is also proposed that a committee or a task force can be set up for looking into the matter. Moreover, we need to promote research and development in order to promote inventions. The government can provide for incentives to those engaged in research and development by way of tax deductions. The number of patent applications can be increased by way of reducing the time for patent prosecution. The delays in the patent prosecution can be taken care of by the technology. We also need to build our capacity in order to increase innovations.

The informal sectors have to be sensitised in order to promote patenting of inventions. The technical procedure has to be relaxed in order to promote innovations at the grassroot. The utility patent model seems a good solution for protecting the jugaad inventions. One of the most important aspects of IP is that of its enforcement. The government and the judiciary must take steps to ensure the proper IP enforcement. So, if there is an infringement stringent actions are to be taken against the infringer. Commercial courts with specialized IP cells can be set up to deal with IP matters.

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