

# PROTECTION FOR INCREMENTAL

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# ABSTRACT

Patents are considered to be an important incentive for innovators to produce inventions and disseminate knowledge in society. However, the current patent system does not help the informal sector industries and the Micro, Small, and Medium Enterprises (MSMEs) in commercializing their innovations. Their innovations are incremental in nature, developed under limited resources that are largely influenced by local issues. These minor innovations cannot meet the high patentability standardsof an examination and even if they do, the lengthy procedure and high cost of acquiring patents discourage such innovators from commercializing their innovations. This paper discusses the benefits of a Utility Models system in the context of the informal sector and how it can help in overcoming the problems faced by the grassroots innovators with respect to the present patent system. The paper also delves into different Utility Models regimes around the world and how India, where MSMEs and informal sectors have a major role in the economy could benefit from such a system and can protect the minor and incremental innovations emanating from these sectors.

Keywords – Patents, Utility Models, MSMEs, Incremental innovations.

# I. INTRODUCTION

Patents are considered to be an important tool of growth and innovation in this era of industrialization and technological development. Patents have an important function in strengthening the knowledge base of a society and the technological and economic advancement of a country. Patents enable the inventor to capture the return from his investment made in the invention, that would otherwise be subject to appropriation by others<sup>1</sup>. However, patent laws have a very stringent level of patentability criteria that the incremental and minor inventions made by the informal sector are unable to meet. These grassroots innovations are being done outside the realm of the formal sector and are incremental in nature, making it difficult for them to overcome the regular patentability criteria. Also, complex patent procedures and the high cost of patenting prevents the MSMEs and small innovators from utilizing the benefits of patents. For a developing country, the informal sector has a very significant role in economic development as the majority of economic activities are being done there. Incentivizing the innovations generated by this sector could not only help in developing a healthy environment of competition among them but could also give a strong push to indigenous technological development leading to a strong domestic economy. Utility Models is one such system that can incentivize this sector by providing them short-term protection which is low cost and does not have a stringent procedural examination.

The present paper argues that for informal and grassroots innovators, an alternative system for awarding and protecting incremental innovation based on the utility models is suited for developing

<sup>&</sup>lt;sup>1</sup> EdmundW.Kitch,"The Nature and Function of the Patent System"20 Journal of Law and Economics 266 (1977).

countries. The paper begins by examining the meaning and important characteristics of "Utility Models" and how they are different from regular patent regimes. The paper later moves onto discuss various utility models adopted by countries and their unique features. The paper then explores the possibilities of utility models regime in India keeping in mind the role of the informal sector in the country and concludes by suggesting that India indeed should look into framing a utility model-based system to capitalize on its grassroots and MSME sector innovations which could accelerate the growth and development of the domestic economy.

## **II. UTILITY MODELS PATENTS**

There are certain innovations that may not fulfill the substantive requirements of inventive step as required by the traditional patent law but nonetheless, they do have some minor flashes of geniuses which seeks for an alternative means for protection. The "Utility Models" system provides protection to such minor inventions by granting protection similar to that of a patent system. Utility models are a short-term right granted for those inventions which lack the same degree of inventiveness that the patent law requires. This model is also referred to as "small patents" or "petty patents" or sometimes considered as a "second-tier" patent protection<sup>2</sup>. Utility model patents are generally aimed at protecting incremental or minor inventions which are novel and are capable of industrial application. The WIPO defines the utility model as "Similar to patents, utility models protect new technical inventions through granting a limited exclusive right to prevent others from commercially exploiting the protected inventions without consents of the right holders. They are sometimes referred to as "short term patents", "utility innovations" or "innovation patents". In general, utility models are considered particularly suited for protecting inventions that make small improvements to, and adaptations of, existing products or that have short commercial life. Utility models are generally used by local inventors."<sup>3</sup>The rationale behind utility models stems from the fact that social welfare enhancing inventions are cumulative in nature and that many of them are way below the threshold of novelty and inventive step as prescribed by regular patent law, making them ineligible for accommodation in the regular patent protection regime<sup>4</sup>. Presently, nearly seventy countries provide patent protection similar to the utility model protection in some form or another<sup>5</sup>.

The term "Utility model" has not been defined in the international intellectual property paradigm as there is no uniform applicability of it throughout the world depending upon the domestic laws. Despite that, according to Suthersanen, there are certain common features which could be found in all the national utility model laws like they give exclusive rights to the proprietor of the right for a term shorter than the regular term given under patent, novelty is the norm in all utility models systems, but the degree of it may vary from country to country and lastly, registration is mandatory but usually, there is no substantive examination of applications<sup>6</sup> and the fee of registration is usually low as compared to regular patent application. Apart from these common features, the utility model-based legal regimes around the world

<sup>&</sup>lt;sup>2</sup> Dr. Hans Peter Brack, *Utility models and their comparison with patent and implications for the us intellectual property law system*, Boston College Intellectual Property & Technology Forum, 1,*available at*<hr/>http://bciptf.org/wp-content/uploads/2011/07/13-iptf-Brack.pdf> (last visited on October 15, 2021).

<sup>&</sup>lt;sup>3</sup>What is a Utility Model, WIPO, *available at*: https://www.wipo.int/patents/en/topics/utility\_models.html (last visited on 13 October, 2021).

<sup>&</sup>lt;sup>4</sup> Graham Dutfield and Uma Suthersanen, *Global Intellectual Property Law*178 (Edward Elgar Publishing Ltd., 2008).

<sup>&</sup>lt;sup>5</sup> Uma Suthersanen, "Utility models: do they really serve national innovation strategies?" in Josef Drexl and Anselm Kamperman Sanders (eds.), *The Innovation Society and Intellectual Property*2 (Edward Elgar Publishing Ltd.,2019). <sup>6</sup>*Id.* at 4.

have certain points of difference that are important for us to look at. First, the subject matter of protection greatly varies from one country to another. For instance, German utility model law specifically bars discoveries, aesthetic creations, plans, and biotechnological inventions and processes from being regarded as the subject matter of the utility model<sup>7</sup>. Most of the utility model regimes simply follow the yardstick provided by the domestic patent law in defining subject matter<sup>8</sup>.Secondly, in most of the legal systems the requirement of technical advancement in the invention also known as 'inventive step' is either diluted or completely removed for the utility models. The level of novelty required differs from universal novelty to relative novelty to domestic novelty<sup>9</sup>. The only thing which goes similar to that of patents is the industrial applicability or utility<sup>10</sup>.Lastly, the granting procedure where some legal systems provide simple registration procedures while few call for a detailed examination process. Many systems offer a detailed search option for the applicant with the payment of a certain fee<sup>11</sup>.

The proponents of the utility model system consider it significant for developing countries that are looking to advance their domestic technological capabilities and diffuse the usage of intellectual property at the local level<sup>12</sup>. Cheap and expedited application procedure in utility models helps in reducing the cost of the patent which is helpful for local innovators in developing countries. It promotes practical and useful researches and expands the pool of knowledge through disclosure which further helps in the diffusion of legally protected innovations. It would also ease the burden upon the patent authorities and they could divert their attention to the examination of general patent applications saving money and time of applicants<sup>13</sup>. The utility model can help the local and small innovators survive the onslaught of new and complex technologies by protecting their innovations and increasing their business life and role in the development of the economy<sup>14</sup>.

Another important area that can be benefitted from the creation of 'utility models' legal regime is the SMEs, especially in the context of developing countries where their presence is quite large and cumulative innovation and imitating of ideas is quite prevalent. In developing countries, many breakthroughs and incremental innovation come from the SME sector than from larger enterprises. Such creations tend to have lower standard of inventiveness and are prone to be copied by rivals, thus deserve to get protected under a utility model system<sup>15</sup>. It can enhance access to the patent system for SMEs as a shorter examination period and a low level of inventive step requirement could reduce the cost of acquiring patents<sup>16</sup>. A fast and cost-effective utility model-based legal regime can improve the legal environment for those SMEs which are constantly involved in the process of innovation and

<sup>9</sup>*Ibid*.Universal novelty means that the invention is not anticipated anywhere in the world by writing or usage, prior to the filing of the patent application. Domestic novelty refers tonon-prior anticipation of the invention by writing or usage,only within the territory of the nation where the application for patent rights are being filed.

<sup>&</sup>lt;sup>7</sup>Gebrauchsmustergesetz (Utility Model Act), §1,§2.

<sup>&</sup>lt;sup>8</sup>Supra note 4 at 180.

<sup>&</sup>lt;sup>10</sup> N.AyseOdmanBoztosun, "Exploring the Utility Models for Fostering Innovation" 15*Journal of Intellectual Property Rights* 430 (2010).

<sup>&</sup>lt;sup>11</sup>Supra note 4 at 180.

<sup>&</sup>lt;sup>12</sup> Gautam Sharma and Hemant Kumar, "Exploring the Possibilities of Utility Models Patents Regime for GrassrootsInnovations in India" 23 *Journal of Intellectual Property Rights* 122 (2018).

<sup>&</sup>lt;sup>13</sup>Supra note 10.

<sup>&</sup>lt;sup>14</sup>Supra note 12.

<sup>&</sup>lt;sup>15</sup>Supra note 5 at 8.

<sup>&</sup>lt;sup>16</sup>Mark D. Janis, "Second Tier Patent Protection" 40 Harvard International Law Journal179 (1999).

adaptation<sup>17</sup>.Utility models encourage developing countries' enterprises especially SMEs to undertake minor incremental innovations and adaptations which have a cumulative effect upon the growth and total factor productivity could be considerable<sup>18</sup>.

However, there are also certain risks associated with Utility models based legal regime that requires due attention. By lowering the threshold of inventive step and novelty under the utility model, there could be a proliferation of below-par and low-quality innovations which could actually harm the innovation process in the society. Also, the lack of substantive examination could certainly lead to more frequent exhaustive validity attacks on inventions protected under the utility model regime. This would lead to excessive litigations and uncertainty which could go against the interest of local innovators and SMEs<sup>19</sup>. Another related concern is that in interpreting the required level of inventiveness, the courts might deviate from the suggested standards which could lead to uncertainty in enforcing the rights granted under the utility model system<sup>20</sup>. The critics of the utility model also point out the risk of abuse of such a system by the large market players, who can flood a promising technological sector with numerous utility model patent applications, creating a serious problem for SMEs attempting to enter the market<sup>21</sup>. Therefore, a careful and well-thought approach is required in the implementation of utility models system to mitigate such undesirable results.

#### **III. INTERNATIONAL PERSPECTIVE OF UTILITY MODELS: A BRIEF OVERVIEW**

The Paris Convention for the Protection of Industrial Property 1883 recognizes utility models as one of the objects of industrial property and hence covered under the convention<sup>22</sup>. Apart form that, it nowhere defines it nor specifies its scope but merely confirms that principles, as given under the convention, would be applicable to utility models also. The TRIPS agreement of 1994 does not explicitly mention utility models but by virtue of its article 2(1), relevant provisions of the Paris convention are extended to all WTO members which includes article 1(2) of the Paris Convention<sup>23</sup>. If we sift through history, the seeds of the present utility models regime were sown by the United Kingdom's Utility Designs Act of 1843<sup>24</sup>. The scope of the act was confined to external appearance or form of the invention, not its function or principle. In other words, the act only protected the designs for the shape or configuration of useful articles of manufacture<sup>25</sup>. This act encouraged other European countries to also consider such a model for their intellectual property regime.

<sup>18</sup> Nagesh Kumar, "Intellectual Property Rights, Technology and Economic Development: Experiences of Asian Countries" 38*Economic and Political Weekly*223 (2003).

<sup>&</sup>lt;sup>17</sup> Uma Suthersenan, "Utility Models and Innovation in the Developing Countries" UNCTAD-ICTSD, 7 (2006) *available at*<https://unctad.org/system/files/official-document/iteipc20066\_en.pdf.>(last visited on April 20, 2021).

<sup>&</sup>lt;sup>19</sup>*Supra* note 16 at 182.

<sup>&</sup>lt;sup>20</sup> Peter A. Cummings, "From Germany to Australia: Opportunity for a Second-TierPatent System in the United States" 18 *Michigan State Journal of International Law*321 (2010).

<sup>&</sup>lt;sup>21</sup>*Supra* note 16 at 187.

<sup>&</sup>lt;sup>22</sup>Paris Convention for Protection of Industrial Property, 1883, art. 1(2): "The protection of industrial property has as its object patents, **utility models**, industrial designs,trademarks, service marks, trade names, indications of source or appellations of origin, and the repression of unfair competition."

 $<sup>^{23}</sup>Supra$  note 4 at 181.

<sup>&</sup>lt;sup>24</sup>*Supra* note 16 at 156.

<sup>&</sup>lt;sup>25</sup>*Ibid*.

The German patent law at that time had a very stringent patentability standard, specifically with regard to 'inventiveness' which was too difficult for minor inventions to overcome<sup>26</sup>. Taking a cue from the United Kingdom, Germany also in the year 1891 came up with its own utility model act "Gebrauchsmuster" which has now become the prototype for other countries. The act, which was recently amended in the year 2017, protects any invention that is new, involves an inventive step and is capable of industrial application<sup>27</sup>. The law also has certain excluded subject matters which include, apart from the usual matters excluded under the patent law, inventions concerning processes and biotechnology inventions<sup>28</sup>. There is no examination with regard to novelty, inventive step, and industrial applicability prior to registration under the act<sup>29</sup>. The subject matter is considered novel if it does not form part of the state of the art which means any knowledge by the written description or use made available to the public within the territory of Germany<sup>30</sup>. The protection under the act is granted for a period of ten years which includes paying of maintenance fees from fourth to tenth year<sup>31</sup>.

If we turn our gaze to the east Asian neighbors of India, many of them have adopted utility model legal system for the protection of minor inventions in their intellectual property regimes. Japan was the first Asian country which enacted its Utility Model Act in the year 1905 on the lines of German law in order to protect minor inventions and accelerate the industrial development of the Japanese economy<sup>32</sup>. The subject matter of the Utility law comprised of any device which is industrially applicable and is related to the shape or construction of articles, explicitly excluding processes and substance<sup>33</sup>. Initially, there was no fundamental difference between the structure of the patent and utility model system apart from the duration of right which was six years and degree of inventive step<sup>34</sup>. All the applications filed under the Utility Model Act had to go through a substantive pre grant examination. However, by the end of 1980's there was a substantial increase in the applications because of the low cost of utility models and an increase in the applications by both large and small companies due to the confidence in the validity of the utility models<sup>35</sup>. This led to congestion of the patent office and increasing backlogs of unexamined applications. To counter this problem, a major overhaul of the act was carried out in 1994 in which the system of substantive examination was done away with. Currently, the term of protection under the Utility Model Act is ten years. It has been argued that this system has helped in diffusing technological information and incremental innovations in the domestic Japanese industries, which had a positive impact on the productivity growth of Japan<sup>36</sup>.

<sup>&</sup>lt;sup>26</sup>*Supra* note 20 at 303.

<sup>&</sup>lt;sup>27</sup>*Supra* note 7, §1.

<sup>&</sup>lt;sup>28</sup>*Supra* note 17 at 16.

<sup>&</sup>lt;sup>29</sup> DPMA, "Utility Models: An Information Brochure on utility model protection" 4,*available* 

*at*<https://www.dpma.de/docs/english/broschueren\_eng/bro\_utilitymodels\_en.pdf.> (last visited on April 10, 2021). <sup>30</sup>Supra note 17 at 16.

<sup>&</sup>lt;sup>31</sup>*Supra* note 7, § 23.

 $<sup>^{32}</sup>Supra$  note 20 at 306.

<sup>&</sup>lt;sup>33</sup> Dr. K S Kardam, Utility Model: A Tool for Economic and Technological Development: A Case Study of Japan, 44 (2007) (Final Report in Fulfillment of Long-Term Fellowship, Tokyo Institute of Technology) available at<https://www.ipindia.gov.in/writereaddata/images/pdf/FinalReport\_April2007.pdf> (last visited on March 20, 2021).

 $<sup>^{34}</sup>$ *Id.* at 41.

<sup>&</sup>lt;sup>35</sup>Supra note 17 at 17.

 $<sup>^{36}</sup>Supra$  note 33 at 43.

Malaysia has a tow tier patent protection system under it Patents Act 1983, in which two types of protection are available, first through the grant of regular patents and secondly through the issue of certificate for "utility innovation"<sup>37</sup>. A utility innovation is an exclusive right granted to minor inventions which do not have to pass the inventiveness test as required of a patent<sup>38</sup>. Only one claim is allowed under utility innovation and a substantive examination is done with respect to prior art before granting of a certificate of utility innovation<sup>39</sup>. Apart from the above countries South Korea, Vietnam, Taiwan, China have also adopted the "Utility Models" system according to their socio-economic demands.

## IV. UTILITY MODELS AND INDIA: EXPLORING THE POSSIBILITIES

Currently, in India, there is no alternative system on the lines of "Utility Models" for the protection of minor innovations apart from the regular patent protection. The presence of a large-scale informal sector and MSMEs in India surely provides a strong case for adopting such a system for these sectors where most of the innovations are incremental and minor. The MSMEs have a significant contribution to the Gross Domestic Product (GDP) of the country which is constantly increasing over the years<sup>40</sup>. They have an important role in generating employment and industrializing rural and backward areas thus, ensuring equitable distribution of wealth and national income<sup>41</sup>. This sector has a large pool of grassroots innovations which requires a legal framework to be utilized to its fullest. Incremental innovations have a very crucial role to play in the generation of knowledge and enrichment of public innovations stock. These innovations certainly require some sort of legal protection which would not only prevent imitation but also incentivize the small and individual innovators to extract commercial benefits out of it.

However, the strict level of inventiveness and novelty as prescribed under the present patent law would exclude most of these innovations and the grassroots innovators would fail to capitalize on the benefits of the patents<sup>42</sup>.In addition to that, the complicated and lengthy application procedure makes patents an unattractive proposition for these sectors. The IPR policy of 2016 stresses on to the need to spread awareness of intellectual property rights amongst the MSMEs<sup>43</sup>. A Utility Model system that is cost-effective, less time consuming, and does not have substantive pre-grant examination can certainly help in not only spreading awareness but would also increase and strengthen the innovative capabilities of MSMEs and grassroots innovators. The utility model would provide them with an incentive to innovate and since the cost is low, the investment requirement is also much smaller<sup>44</sup>.It would also help in preserving traditional knowledge by incentivizing traditional models of innovation based upon traditional methods available by the local population. Mainstreaming such traditional knowledge would ward off any attempt by outsiders to exploit it and gain commercial benefits out of it<sup>45</sup>. This system would also help in ironing out the inadequacies of the patent act and can certainly lessen the burden of the patent examiners.

<sup>&</sup>lt;sup>37</sup>*Supra* note 17 at 21.

 <sup>&</sup>lt;sup>38</sup>MyIPO, "Patent Basics", *available at*: https://www.myipo.gov.my/en/1814-2/(last visited in September 23, 2021).
<sup>39</sup>Laws of Malaysia Act 291, Patents Act 1983, Second schedule, s. 28.

<sup>&</sup>lt;sup>40</sup>Ministry of Micro, Small and Medium Enterprises, "Annual Report 2020-21" 22 (March, 2021).

<sup>&</sup>lt;sup>41</sup>*Id.* at 23.

<sup>&</sup>lt;sup>42</sup>*Supra* note 12 at 126.

<sup>&</sup>lt;sup>43</sup>Department for Promotion of Industry and Internal Trade, "National Intellectual Property Rights Policy 2016" 5 (May, 2016).

<sup>&</sup>lt;sup>44</sup>MalathiLakshmikumaran and Shilpi Bhattacharya, "Utility Models: Protection for Small Innovations" 46 *Journal of the Indian Law Institute* 328 (2004).

<sup>&</sup>lt;sup>45</sup>*Id.* at 330.

A bottom-up approach is required to diffuse these innovations made by the MSMEs in the market as they are in a better position to understand the issues faced by the common people as compared to the formal sector<sup>46</sup>.

## **V.CONCLUSION**

Studies have shown that soft patent regimes like "Utility Models" have helped an important role in diffusing technological advancements and facilitating a firm level of technological advancement in the countries, especially in Eastern Asia<sup>47</sup>. For a developing country like India which is largely dominated by MSMEs and the informal sector, a utility models system could certainly provide an impetus to its growth and development. Utility models have certain drawbacks also which could not be ignored at any cost, hence what India could do is to come up with its own Utility Model system which is tailored according to its own needs and circumstances specifically with regard to the informal and MSME sector. Such a system must be target-oriented, aiming towards specific sectors of the domestic sector of the economy which have the potential for growth and development and which could help in creating and promoting an environment of innovation. The utility model can work in tandem with the patent system where the latter would deal with high-level and technologically complex innovations, leaving incremental innovations for the former. Utility models system can indeed help in rewarding local innovators and can act as revitalizing factor for MSMEs in the "Make in India" movement of the Government of India.

<sup>&</sup>lt;sup>46</sup>*Supra* note 12 at 128.

<sup>&</sup>lt;sup>47</sup>*Supra* note18 at 214.