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Research Article

Enhancing Msme Innovations Through Utility Models: A Comprehensive Analysis From An Ipr And International Law Perspective

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ABSTRACT

Patents can be referred to as the guardians of providing exclusive rights to inventors and innovations for fostering progress of culture of a nation. These are foundational components of IP laws and a legal instrument granted for the creations. Patents are crucial for encouraging inventions, offering inventors a window for commercialization and a competitive edge for their innovation. But all ground-breaking ideas or innovations cannot be a revolutionary breakthrough. Many innovations develop through incremental advancements. These are modest but are meaningful enhancements of existing articles. It may not have a dramatic impact, but their collective contribution is undeniable to technological progress. These innovations represent a larger transformative development. Therefore, protection for such incremental inventions is pivotal. Innovators are at risk in exposure to intimations of these advancements. These incremental inventions frequently are a product of SMEs and MSMEs. These can be termed as 'frugal innovations.'[1] The frugal innovation can be referred to as 'below the radar innovations' or 'bottom of pyramid innovations' and can be considered as a quick-fix solution.[2] The type of innovation has long term sustainability and scalability. As major corporations, MSMEs lack resources and funding for R&D. Therefore, incremental inventions become a survival point of these entities. The existing patent system can be a barrier for the incremental inventions because of strict patentability criteria, inventive steps, industrial applicability, and demands novelty. Incremental inventions may now have these thresholds forming a gap in the system making most of the inventions unprotected, therefore, MSMEs and SMEs face hurdles in obtaining patents for this advancement due to intensive requirements, therefore, a potential solution is required for these kinds of inventions. Under patents, utility patents have emerged as an important concept. Utility model systems are one of the solutions to foster innovations. This model is prevalent in various countries offering a unique procedure for securing inventions without a stringent requirement like of traditional patents. Comparing utility models, it is revealed that utility models have a set of eligibility requirements which are more relaxed and have a low demand of thresholds with a broader spectrum for innovation and novel processes to protect manufactured articles, composition, matters, machines, and valuable improvements making utility patents crucial for innovators. A comprehensive report authored by the Economic Advisory Council to the Prime Minister (EAC-PM) advocates for a legislative framework that grants protection to incremental innovations

[1] Sajid Sheikh & Adithya Anil Variath, *Boosting Innovative Climate in India via Utility Model Regime*, RFMLR, 2024, https://www.rfmlr.com/post/boosting-innovative-climate-in-india-via-utility-model-regime (last accessed on November 3, 2024).
[2] Id.

recommending utility patent model for India.[3] It stems as a recognition and a potential which can fuel innovation specifically in Atal Incubation Centers and Atal Tinkering Labs under Atal Innovation Mission.[4] The report also emphasizes the 3 million utility patents filed globally in 2020.[5] Utility patents are turned out as a relaxed eligibility requirement and cost effective as compared to traditional patents. It was established as a distinct category without diluting the robust patent regime. This strategic move if India incorporates can align the thriving hub of startups and MSMEs presenting utility patents as an alternative option of regular patents in the IP sector. Moreover, this model resonates with the objectives of IP offices worldwide, emphasizing accessibility, responsiveness, and inclusivity to the dynamic aspect of innovative endeavors.

Keywords: incremental innovations, frugal inventions, utility patents, inventiveness.

INTRODUCTION

In the rapidly evolving landscape of intellectual property rights, the protection of innovations has become increasingly crucial for economic growth and technological advancement. While patents serve as the primary mechanism for protecting inventions, there exists a significant gap in safeguarding incremental innovations, particularly those developed by Micro, Small, and Medium Enterprises (MSMEs). As highlighted in the original paper, patents act as guardians of exclusive rights for inventors, fostering cultural progress and technological development. However, the existing patent system's stringent requirements often create barriers for MSMEs, which form the backbone of many economies, including India's.

The concept of utility models, also known as 'petty patents' or 'innovation patents,' has emerged as a potential solution to bridge this gap. These models offer a more flexible and accessible form of intellectual property protection, particularly suited to the needs and capabilities of MSMEs. The significance of this system becomes even more apparent when considering that MSMEs contribute approximately 44% of India's gross industrial production and employ around 60 million people, as noted in the original research.

Building upon the paper's foundation, it's important to note that utility models represent a paradigm shift in intellectual property protection, offering a middle ground between full patent protection and no protection at all. This system acknowledges that innovation often occurs incrementally rather than through breakthrough discoveries. In the context of developing economies like India, where MSMEs might lack the resources for extensive R&D or complex patent applications, utility models can serve as a crucial stepping stone for protecting and commercializing innovations.

The global landscape of utility model protection reveals interesting patterns and success stories. While the paper discusses various international approaches, it's worth noting that countries like Germany, Japan, and China have successfully leveraged utility models to foster innovation among smaller enterprises. For instance, China's utility model system has been particularly successful, with domestic applicants filing over 98% of utility model applications, demonstrating the system's effectiveness in protecting local innovations.

The economic implications of introducing utility models extend beyond mere intellectual property protection. They can serve as catalysts for technological advancement, market competitiveness, and economic growth. For MSMEs, which often operate with limited resources and in competitive markets, utility models can provide a crucial competitive advantage while encouraging continued innovation. This aspect becomes particularly relevant in the Indian context, where MSMEs contribute significantly to the GDP and export earnings. Recent developments in the global innovation landscape further emphasize the timeliness of considering utility model protection. The COVID-19 pandemic has highlighted the importance of rapid innovation and protection mechanisms, particularly for smaller enterprises developing incremental improvements in existing technologies. This real-world example demonstrates how utility models could facilitate quicker protection and commercialization of innovations during critical times.

The paper rightly emphasizes the need for a balanced approach in implementing utility model protection. While offering more accessible protection, the system must maintain sufficient rigor to prevent abuse and ensure quality innovations. This balance is crucial for maintaining the credibility of the intellectual property system while achieving the goal of fostering innovation among MSMEs. Looking beyond the current framework, utility models could play a vital role in emerging technological fields where incremental innovations are common. Areas such as artificial intelligence, Internet of Things (IoT), and sustainable technologies often advance through small but significant improvements, making them ideal candidates for utility model protection. This aspect becomes particularly relevant as India positions itself as a global technology hub.

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[3] *Utility Patents in India*, DePenning & DePenning, 2024, https://depenning.com/blog/utility-patents-india/ (last accessed on November 3, 2024).

[4] Id.

[5] Id.

Moreover, the integration of utility models into the existing intellectual property framework requires careful consideration of international obligations and domestic needs. While the TRIPS Agreement doesn't explicitly mandate utility model protection, the flexibility it offers allows countries to implement systems that best serve their development goals. This alignment with international frameworks while addressing local needs represents a crucial balance in intellectual property policy.

Understanding the potential impact of utility models requires consideration of both direct and indirect effects on innovation ecosystems. Beyond providing immediate protection for incremental innovations, utility models can foster a culture of innovation, encourage knowledge sharing, and facilitate technology transfer. These broader impacts could significantly contribute to India's goals of becoming a knowledge-based economy and achieving technological self-reliance.

The path forward requires careful consideration of implementation strategies, balancing the needs of various stakeholders, and ensuring that the system truly serves its intended purpose of fostering innovation among MSMEs. As India continues to strengthen its position in the global innovation landscape, the introduction of utility models could represent a significant step toward comprehensive intellectual property protection that serves all levels of innovation.

DEVELOPMENT OF MSMEs IN INDIA

Since India's independence, the government of India has supported MSMEs by different approaches. However, while various financial and infrastructural support mechanisms exist, IP protection for incremental innovations remains inadequate. Various approaches and choices were incorporated for upgrading work openings, encouraging, and compelling preparations for private divisional assets and aptitudes. The Small Industries Development Organization (SIDO) was established in 1954, which is now being formed as Micro, Small and Medium Enterprises Development Organization.[6] SIDO was a peak body for composed development of MSMEs. The Industrial Policy of 1946 suggested improvement of subordinate enterprises, fostering subsidiary industries around large-scale industries to stimulate localized development.[7] The Industrial Policy proclamation 1977 recommended advancement of little ventures which are broadly scattered in modest communities and provincial zones making a shift from urban communities of the areas.[8] The idea of 'District Industries Focus' was given, marking a second phase of the development, starting from 1991 to 1999, aligning to India's economic liberalization.[9] In 1991, a new policy framework was introduced to facilitate competitiveness, focusing on quality, technology, and improved infrastructure. Establishment of quality assurance centers and subcontracting exchanges was made. The Small Industries Development Bank of India (SIDBI) was created.[10] Technology Development and Modernization Fund for accelerating financial and technical support was established.[11] A Deferred Payment Act was enacted, facilitating prompt payments to MSMEs.[12] Known as the third phase, the 1999 era in ongoing evolution of policy frameworks increased the focus on advancing the MSME sector. The ministry of small-scale industries and agro and rural industries was recognized in the formation of the ministry of micro, small and medium enterprises 1999. In 2000 a new policy package was implemented for persistence challenges related to credit technology marketing and infrastructure a credit guarantee scheme and a credit-linked capital subsidiary scheme was also introduced to boost technology upgrades and provide collateral fee loans the micro, small and medium enterprises development act was implemented in 2006 after a lot of consultation with the stakeholders.[13] It introduced reforms such as inclusion of medium enterprises in broad planning, a new definition for each MSME segment, and adjustment to FDI cap. The first ever legal framework was established which recognized enterprises of both manufacturing and service sectors.

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[6] Ministry of Micro, Small & Medium Enterprises, *Annual Report 2001-02*, 2002, https://dcmsme.gov.in/publications/areports/ar2001-02/english/fnl/AR21.pdf.

[7] National Repository of educational Resources, *Unit 11: Evolution of Industrial Policy*, https://egyankosh.ac.in/bitstream/123456789/7123/1/Unit-11.pdf.

[8] Id.

[9] L. Balaji, S. Reddy Sowmya, *Role of District Industrial Centers in Entrepreneurship Development*, IJSTM Vol. 6 Issue No. 5, 2017, https://www.ijstm.com/images/short_pdf/1495175847_L1126ijstm.pdf.

[10] Id.

[11] Id.

[12] *Standard od Deferred Payment*, Wikipedia, https://en.wikipedia.org/wiki/Standard_of_deferred_payment#:~:text=Deferred%20payment%20is%20based%20on,are%20unlikely%20to%20be%20collectable (last accessed on November 3, 2024).

[13] Micro, Small and Medium Enterprises Development Act, No. 27 of 2006, https://samadhaan.msme.gov.in/WriteReadData/DocumentFile/MSMED2006act.pdf.

DISTINCTION BETWEEN PATENTS AND UTILITY MODEL

Basis	Patents	Utility Model
Subject matter of protection	For both novel and improvised inventions	Only for marginal improvised inventions
Conditions	Novelty, industrial use, and inventive steps are primary	Industrial usage and inventive steps are secondary
Time-Period	20 years	Generally, from 7-10 years, vary from nation to nation
Application Conversion	Conversion from patent to utility patent is always possible	Conversion from utility patent to patent can only be done under certain circumstances
Time Taken for Grant	Between 2-5 years	Between 6-12 months
Usage	Actively used	Less actively used
Cost	Expensive	Cheap
Procedure for Application	Substantive examination is essential	Substantive examination is not required

THE CONCEPT OF UTILITY MODELS AND THEIR LEGAL RECOGNITION

Utility models, often referred to as "petty patents" or "innovation patents," are a form of intellectual property protection designed for inventions that do not meet the stringent criteria of standard patents. While patents require a high degree of novelty, an inventive step, and industrial applicability, utility models have lower eligibility thresholds. They primarily cover small but functionally significant improvements in products or processes, offering a cost-effective and faster means of securing IP rights.

Key characteristics of utility models include:

- Lower Inventive Step Requirement – Unlike traditional patents, utility models do not necessitate a substantial inventive step. Even minor modifications to existing inventions can qualify for protection.
- Faster Granting Process – Utility models typically involve minimal or no substantive examination, leading to a quicker registration process (often within a year).
- Shorter Duration of Protection – Unlike patents, which generally last for 20 years, utility models provide protection for 6 to 15 years, depending on the jurisdiction.
- Cost-Effectiveness – Filing and maintaining a utility model is significantly cheaper than a standard patent, making it an attractive option for MSMEs with limited financial resources.
- Protection for Incremental Innovations – These models protect small improvements that enhance existing technology without drastically altering its fundamental concept.

The recognition and implementation of utility models vary significantly across jurisdictions. While some countries have well-established frameworks, others either lack such provisions or have limited mechanisms to support incremental innovations.

INTERNATIONAL LAW PERSPECTIVE ON UTILITY MODELS

Global Legal Framework for Utility Models

Unlike patents, which are governed under the TRIPS Agreement, utility models do not have a standardized global legal framework. However, several international treaties and agreements influence their implementation across different jurisdictions.

The Paris Convention (1883)

The Paris Convention for the Protection of Industrial Property recognizes utility models as part of industrial property. Article 1(2) of the Convention explicitly includes utility models, allowing signatory states to offer protections tailored to their domestic needs. This has enabled countries like Germany, China, and Japan to establish robust utility model systems that complement their existing patent laws.[14]

The TRIPS Agreement and Utility Models

The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), established under the World Trade Organization (WTO), sets minimum standards for patents but does not explicitly cover utility models. However, TRIPS provisions related to non-discrimination, national treatment, and enforcement of IP rights indirectly influence how utility models are implemented worldwide. Countries must ensure that their utility

[14] UNCTAD-ICTSD Project on IPRs and Sustainable Development, Utility Models and Innovation (2006), available at https://unctad.org/system/files/official-document/ictsd2006ipd13_en.pdf.

model frameworks align with broader IP commitments under TRIPS while balancing national innovation policies.[15]

WIPO Guidelines

The World Intellectual Property Organization (WIPO) acknowledges utility models as a form of protection for technical improvements, encouraging countries to develop frameworks suited to their economic needs.[16]

Regional Approaches to Utility Models

Various regions have developed different approaches to utility model protection:

- European Union: While the EU does not have a unified utility model system, member states such as Germany and Spain have developed national frameworks. The European Commission has explored harmonization efforts, but disparities in legal traditions have made a common EU-wide approach challenging[17].
- ASEAN Countries: Southeast Asian nations like Malaysia, Thailand, and the Philippines have implemented utility model protections designed to support local businesses. These frameworks emphasize fast registration and minimal examination requirements, making them particularly accessible to MSMEs[18].
- China and Japan: Both countries have developed comprehensive utility model systems that cater to incremental innovations. China, for example, processes over 3 million utility model applications annually, reflecting the system's importance in domestic innovation strategies[19].

OVERVIEW OF UTILITY MODEL REGULATIONS GLOBALLY

As per Australian Law Reform Commission, patents stimulate the growth of national industry because patents can attract foreign investment and increase export and profits generated by exploitation of patents can be invested in R&D which further stimulates industrial and commercial growth leading to a better economy of the country.[20] But this is not the same for developing countries, a minor form of IPR is conducive for innovation and growth namely, the utility patent system. It may serve as a remedy for shortcoming of the patent system if they are enforced for conducive innovation within a legal structure implemented with certain restrictions with relevant IP legislation and effective enforcement.[21]

The concept of utility can be traced back to the statutes that existed 150 years ago like the United Kingdom Utility Design Act of 1843.[22] The European Commission in 1997 recommended a utility model arrangement. China follows the 1984 patent law for regulating utility patents. [23]Utility model patents are not specifically addressed in the TRIPS agreement, but it compels countries to legislate new laws and procedures which improves IPR.[24] Article 1(2) of the Paris Convention includes utility models alongside regular patents in the context of industrial property.[25] Therefore, utility model patents are followed according to the Paris Convention's standard principles like priority rights. However, there is no common consensus or acceptance for a utility model worldwide and different jurisdictions have different models for themselves. Approximately 75 countries have already adopted the system as a second-tier system in this era. It can be used as a strategic weapon followed by the patent system.[26]

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[15] WIPO, Understanding Utility Models (2016), available at https://www.wipo.int/edocs/pubdocs/en/wipo_pub_895_2016.pdf.

[16] WIPO, The International Legal Framework for the Protection of Utility Models (2012), available at https://www.wipo.int/edocs/mdocs/aspac/en/wipo_ip_kul_12/wipo_ip_kul_12_ref_t3c.pdf.

[17] European Commission, Utility Models in the EU, available at https://single-market-economy.ec.europa.eu/industry/strategy/intellectual-property/patent-protection-eu/utility-models_en.

[18] PwC, Regional Electricity Trade in ASEAN, available at https://www.pwc.com/sg/en/publications/assets/page/regional-electricity-trade-in-asean.pdf.

[19] European Patent Office, Exploring Patent Information from the ASEAN Region, available at https://www.epo.org/en/searching-for-patents/helpful-resources/patent-knowledge-news/exploring-patent-information-asean-1.

[20] Australian Law Reform Commission, *Economic Benefits of the Patent System, in Genes and Ingenuity: Gene Patenting and Human Health*, ALRC Report 99 (2004), https://www.alrc.gov.au/publication/genes-and-ingenuity-gene-patenting-and-human-health-alrc-report-99/2-the-patent-system/economic-benefits-of-the-patent-system/.

[21] N Ayse Odman Boztosun, *Exploring the Utility of Utility Models for Fostering Innovation*, Journal of Intellectual Property Rights Vol. 15, November, pp 429-439, (2010).

[22] See supra note 1.

[23] Id.

[24] Global Patent Filing, *The Concept of Utility Model Patent in India Under Patent Law with Example*, Global Patent Filing, 2023, https://www.globalpatentfiling.com/blog/concept-utility-model-patent-in-india-under-patent-law-with-example.

[25] Paris Convention for the Protection of Industrial Property, art. 1(2), 1883, https://www.wipo.int/treaties/en/text.jsp?file_id=288514.

[26] Id.

Countries like Japan, South Korea, and China have already adopted these models for assisting technological advancements and safeguarding minor inventions and also helping in commercializing these inventions at an early age.[27] These countries have successfully exploited the system for further advancements. Other countries include Greece, Georgia, Italy, Brazil, Kuwait, Spain, UAE, Peru, Malaysia, Portugal, Poland, etc.[28]

In many countries, the main criteria for utility patentability are that the invention is 'new,' a thorough review is not necessitated in utility systems resulting in rapid registration.[29] This criterion varies country by country, where some countries have a local requirement, other countries have an absolute need. Local novelty refers to the condition where the invention must not be disclosed within the specific country where the patent application is filed, whereas absolute novelty refers to the condition where innovation is completely new worldwide. Any public disclosure in the globe can affect the novelty of the innovation. Countries like Azerbaijan, Philippines, Malaysia, and Thailand follow the local novelty model whereby countries like China, USA, Australia, South Korea, and Japan follow the absolute novelty model.[30]

Mostly European countries have innovations which can be protected by utility models varying different subject matters. Like in Spain, the utility system is modeled as 'Modelo de Utilidad,' popular for protecting smaller and practical inventions for SMEs to protect structural and mechanical improvements.[31] France provides utility certificates, such as 'Certificate de Utilité' for similar forms of protections for automotive parts, agricultural tools, and consumer goods.[32] Italy has 'Modelo de Utilità,' focusing on protecting innovations in functional products, which are everyday items that undergo impactful design changes.[33] The Japanese Utility Model Act (JUMA), protects the innovation that is related to the structure or shape of a combination of articles or an article as industrially applicable for a period of 10 years.[34]

Germany has a well-established utility model system called 'Gebrauchmuster,' which is commonly used for consumer products, incremental improvement in technology and mechanical devices, including household appliances and tools.[35] The utility model application is filed through the German Patent and Trademark Office. It can be applied directly or through PCT patent applications. It provides protection for 10 years and is registered within 6-10 weeks of filing the patent.[36] In addition, one can file applications for both utility models and for regular patents for the same subject matter, enabling the country to obtain both long-term and short-term protection for the invention.[37] It can be said as an intelligent strategy of marketing.

China is the best example to demonstrate the benefits of establishing a utility model patent system where more than 98% of utility patent applications are filed by domestic applicants only.[38] Even in the case of *Chint Group v. Schneider Electric Low Voltage*, the Chinese court ruled that the utility model was infringed, highlighting that incremental inventions are crucial and are needed to be protected.[39]

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[27] Intepat Team, *Utility-Patents*, Intepat IP, 2023, https://www.intepat.com/blog/utility-patents/ (last accessed on November 3, 2024).

[28] Id.

[29] See supra note 29.

[30] Id.

[31] Baylos, *La figura del modelo de utilitad en la nueva Ley 24/2015 de patentes*, 2015, https://baylos.com/en/blog/0000/la-figura-del-modelo-de-utilidad-en-la-nueva-ley-242015-de-patentes.

[32] Plass, *Utility Model: The Alternative to a Utility Patent with a focus on France*, 2024, https://www.plass.com/en/articles/utility-model-alternative-utility-patent-focus-france#:~:text=The%20French%20utility%20model%20%E2%80%9Ccertificat,has%20a%20simplified%20examination%20procedure (last accessed on November 3, 2024).

[33] Global Legal Practice, *Utility Models*, https://glp.eu/en/resources/focus/patents/utility-model/ (last accessed on 3 November, 2024).

[34] Utility Model Act, Law No. 125 of 1959, https://www.japaneselawtranslation.go.jp/en/laws/view/4005.

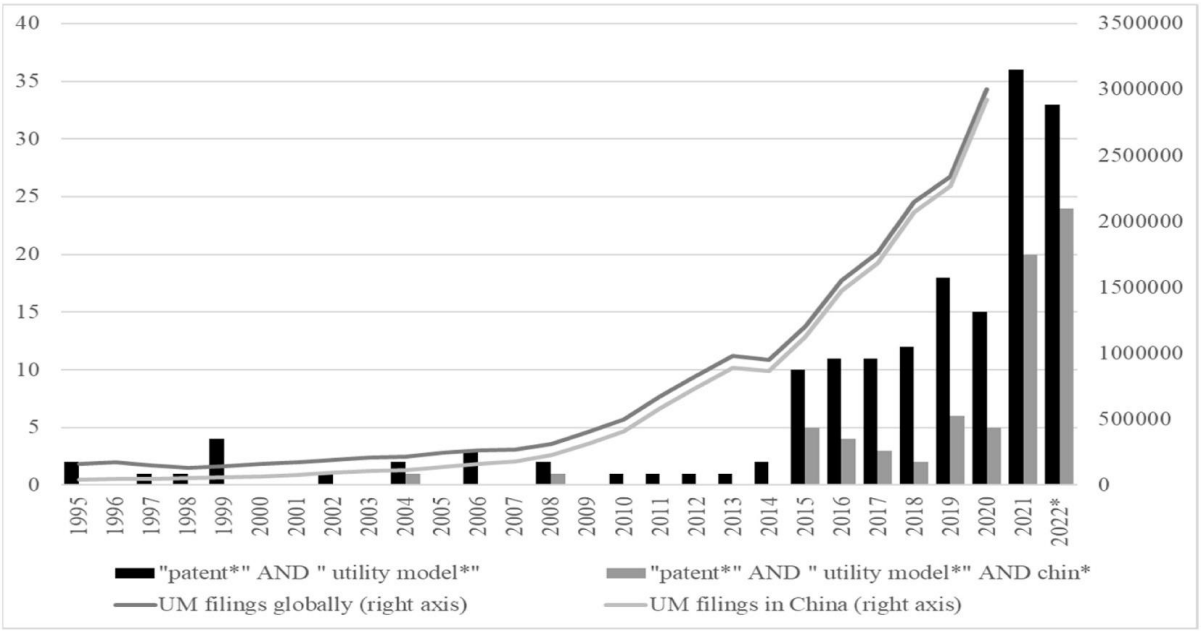
[35] Alfred F. Cbotti, *The German Gebrauchsmuster*, 39 J. Pat. Off. Soc'y 566 (1957).

[36] Id.

[37] John Doe & *Jane Smith, Understanding the Latest Developments in Patent Law*, Lexology, 2024, https://www.lexology.com/library/detail.aspx?g=e8993fb2-d10d-477f-bdd6-66af84c33b2a (last accessed on 3 November, 2024).

[38] *The Case for Utility Patents*, ASIA IP, 2024, https://asiaiplaw.com/article/the-case-for-utility-model-patents (last accessed on 3 November, 2024).

[39] Chint Group v. Schneider Electric Low Voltage, 2009.



Source: UM filing data by the WIPO IP Statistics Database

The below table shows a comparison of utility models of major industrialized countries.

Country	Japan	France	Australia	Germany	Korea	China
Term	10 years	6 Years	8 Years	10 Years	10 Years	10 Years
Novelty Requirement	Same as patents	Same as patents	Same as patents	6 months as a novelty grace period	Same as patents	Same as patents
Substantive Examination	No	No	No	No	Yes	No
Different Standards of Obtaining	Yes	No	Yes	Yes	Yes	Yes
Subject for Protection	Construction, shape, etc	Same as patents	Same as patents	Except methods and processes	Construction, shape, etc	Construction, shape, etc
Observation	Require less inventiveness standards as compared to patents	No synchronization with patents	Require less inventiveness standards as compared to patents	Require less inventiveness standards as compared to patents	Require inventive steps	Require less inventiveness standards as compared to patents

CASE STUDIES OF UTILITY MODEL SYSTEM IMPLEMENTATION

Utility Model System in Australia

In Australia, Petty Patents and Innovative Patents are the words given to utility models. 'Innovative patent' was introduced in 2001 and 'Petty patent' was introduced in 1979.[40] a 1 year initial term is given to the Petty patent from the date of sealing with the maximum time period of 6 years from the filing of the patent application.[41] The goal is to develop a protection that is faster to obtain, easier, and cost effective than an ordinary protection of patents, appropriate for innovations with brief commercial life. Then an innovative patent was developed to enable people and SMSEs to provide them the protection for their innovative ideas for long-term stimulating investment in inventions.[42]An innovative patent has a maximum period of 8 years. It is granted to low level inventions. The eligibility criteria consider the following conditions:

[40] IP Coster, *Patent in Australia*, https://www.ip-coster.com/IPGuides/patent-australia (last accessed on 3 November, 2024).

[41] Australian Law Reform Commission, *Genes and Ingenuity: Gene Patenting and Human Health*, ALRC Report 99, 2004, https://www.alrc.gov.au/publication/genes-and-ingenuity-gene-patenting-and-human-health-alrc-report-99/5-domestic-legal-framework/types-of-patents/.

[42] Id.

- It should be in a manner under section 6 of the statute of monopolies.
- It should be novel from the prior and existed invention before the priority date.
- It should have innovative steps.
- It should be industrial useful.
- It should not be employed in the area of prior patent.
- It should not be employed in the patent area prior.

Certain fields of inventions are restricted for innovative patents like plant and animal related inventions and biological processes developing plants and animals. It is cost effective and costs up to Aus$ 50 for application.[43] It is enforced after a post grant examination process which is optional. A renewal fee is to be paid each year to maintain the patent. [44]

Utility Model System in Korea

The first Utility Model Act, 1961 was passed in Korea which was amended in 1998, because of social demand and local economic development.[45] This law was further updated in 2002 which came into effect in 2003. Article 5(1) and Article 2 of the Act views the articles that can be given utility patents, that is, which are industrially relevant and relate to the structure and shape of a combination of articles or of an article.[46] Some devices which are non-registrable are those which are similar to the national flag or which can disrupt morality and public order or can harm public health.[47] It is granted for 10 years. No substantive examination for utility model application is required. A maximum sentence of 7 years is given to a person who infringes a utility model right and a fine of 100 million Won.[48]

Utility Model System in Russia

'Apparatus' is a term used for this technical solution by the Russian legislation.[49] It is susceptible and new for industrial applications because a utility model is deemed to be novel if its basic features are not similar to the prior art. Patents of utility in Russia are granted for 13 years from the date of filing in the Russian Patent Office. Utility model applications do not undergo any examinations on merits, all formal requirements are met if a utility model is granted, further this application can be converted into an application of invention.[50] A person infringing the utility model can face criminal sanctions under Russian Federation.

ECONOMIC AND INNOVATION IMPACT OF UTILITY MODELS IN GLOBAL IPR SYSTEMS

Intellectual Property Rights (IPR) play a crucial role in driving economic development and fostering innovation. Traditional patent systems provide comprehensive protection for groundbreaking inventions but often impose high costs, stringent criteria, and lengthy approval processes. For small and medium enterprises (SMEs) and micro, small, and medium enterprises (MSMEs), these barriers make patenting difficult, leading to a lack of protection for incremental innovations. **Utility models (UMs) serve as an alternative IP protection mechanism** that promotes economic growth by allowing faster, cost-effective, and accessible protection for minor yet significant technological improvements.

A. Boosting Industrial Growth and MSME Competitiveness

Utility models lower the cost and complexity of IP protection, **allowing MSMEs to safeguard incremental innovations** that may not qualify for standard patents. Countries with **strong utility model frameworks, such as China and Germany**, have seen substantial increases in **domestic patent filings**, leading to rapid industrial expansion. Germany's *Gebrauchsmuster* model has significantly contributed to **engineering and manufacturing industries**, enabling firms to stay competitive in global markets.[51]

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[43] Prithvi Raj, *Utility Model and Patent Law in India: A Critical Analysis*, TQJQI Vol. 12 Issue 6 (2021) 8267-8277.

[44] Id.

[45] Utility Model Act (Republic of Korea), Act No. 2895, 1979, https://www.wipo.int/edocs/lexdocs/laws/en/kr/kr060en.pdf.

[46] Id.

[47] Utility Model Act (Republic of Korea), Act No. 2895, § 7, 1979, https://www.wipo.int/edocs/lexdocs/laws/en/kr/kr060en.pdf.
Id.

[48] Utility Model Act (Republic of Korea), Act No. 2895, § 229, 1979, https://www.wipo.int/edocs/lexdocs/laws/en/kr/kr060en.pdf.

[49] See supra note 48.

[50] Id.

[51] Kimm Gnangnon & Constance Besse Moser, Intellectual Property Rights Protection and Export Diversification: The Application of Utility Model Laws, WTO (2014).

B. Encouraging Foreign Direct Investment (FDI) and Trade

Nations with **robust IP systems, including utility models, tend to attract more FDI** because of legal security for investors. China, which processes **millions of utility model applications annually**, has experienced **a surge in FDI from technology firms** seeking protection for their minor but valuable innovations. The **absence of utility models in India** limits its attractiveness for foreign investors looking to commercialize small but essential product improvements.[52]

C. Strengthening Domestic and Export Markets

Utility models provide **local enterprises with exclusive rights to their minor innovations**, helping them **compete in domestic and international markets**. **China leads global UM filings** (with over 2.8 million applications in 2020), significantly contributing to **its dominance in electronics, telecommunications, and mechanical industries**. **European countries with utility model systems, such as Spain and France,** report a **higher percentage of SME participation in exports** due to increased IP protection[53].

D. Promoting Incremental and Frugal Innovation

Unlike patents, utility models **do not require a high degree of inventiveness**. This enables the protection of **small but crucial technological improvements**. **Frugal innovation**, which focuses on cost-effective and resource-efficient solutions, benefits greatly from utility models.

Examples:

In China, utility models have supported the rapid growth of **small electronics and mechanical industries**, where minor modifications significantly enhance product usability. **In Germany**, automotive and precision tool manufacturers **frequently use UMs to protect modifications** that improve efficiency and durability.

E. Accelerating the Commercialization of New Technologies

Utility models facilitate **faster IP registration and approval** (6–12 months vs. 3–5 years for patents). Rapid approval allows **businesses to introduce innovations into the market quickly**, boosting **consumer access to advanced technologies**. **Japan's system allows inventors to file UMs and later convert them into full-fledged patents**, creating a **hybrid innovation protection model**.

F. Enhancing Collaboration and Technology Transfer

Utility models encourage **collaboration between research institutions and industry** by providing **a structured mechanism for IP sharing**. **Technology licensing based on UMs** allows startups and SMEs to **partner with larger firms without fear of losing their innovations**. **South Korea's UM framework** has significantly increased university-industry collaborations in **engineering and applied sciences**.

UTILITY MODEL AS A CATALYST FOR MSMEs

Prevention of Imitation:

Utility patents provide a legal framework that prevents others from copying an invention unlawfully for a. of 6-10 years. It helps in safeguarding the invention as well as provide a primary basis for stopping competitors from violation of patent or seeking compensation for damages.

Enhancing Reputation:

Utility patents portfolio enhances the corporate image of the business. Investors, customers, business partners often view these portfolios as an illustration of a high-level specialization, technological capacity, and expertise. It is invaluable in finding partners for business and elevating the market value and the company's profile. Some companies in their advertisements often use patents to project the image of their business to the public.

Attracting Investors:

The certainty that comes with patents is highly valued by investors, MSMEs ability can be enhanced and secured by patent rights or even pending applications for raising the capital required to bring the invention into the market. In some sectors, a strong patent portfolio is a basic requirement for attracting the investors. MSMEs which are not able to meet the patentability criteria can take help of utility patents for attracting investors.

Paving the way for internationalization and licensing: Today technology travels around the globe very easily. Patent licenses have become a common way for assessing markets globally. Therefore, companies look

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[52] Uma Suthersanen, Utility Models and Innovation in Developing Countries, UNCTAD-ICTSD Project on IPRs and Sustainable Development (2006).

[53] Utility Models - European Commission.

for partners in the world where they do not have the strength to access the market. Therefore, SMEs can be preferred by a larger company as their partners. Contact between the companies because of a utility model may lead to strategic decisions like cross licensing, licensing, common marketing efforts, and product sharing.

Legal Protection:
Utility patent is a powerful prerequisite against free riders and imitators. It enforces exclusivity effectively. Infringement notice can be given or a lawsuit can be filed by the owner of a patent facilitating an ability for a legal action against copiers and free riders. The remedy and relief is the same as the regular patent filing system.

Lesser Stringent Criteria:
As compared to patents, utility models require less strict requirements, compliance like lower level of inventive steps and have similar processes offering for a shorter period of protection. It is primarily designed to respond to local inventor's needs, requirements, and procedures with durations differing from one country to another.

Focus on incremental innovation:
Utility models are best suited for minor innovations and improvements which do not have many inventive steps. Countries like South Korea, China and Japan have effectively introduced utility models to protect incremental innovations, safeguarding minor inventions which may lack intrusive novelty, creating an environment for small scale innovators, contributing to the prosperity of scientific as well as IP regimes.

Quick Registration Process:
As compared to regular patent process, the registration process in the utility system is simpler because there is no substantive trial and examination making the process speedier. Therefore, obtaining and maintaining a utility model is easier and a quick grant to monopoly IP right is gained.

Ensuring a balance:
A delicate balance is formed by this model between accessibility and protection, which is crucial for developing innovations, while utility models safeguard inventions in a cost-effective manner, encouraging innovation without restrictions, having the potential to revolutionize India's innovative ecosystem, giving a conducive nature for grassroots creativity.

CHALLENGES AND LIMITATIONS OF UTILITY MODELS FOR MSMEs

Lack in Legal Security:
Due to less substantive investigation, the legal security becomes reduced of the registered invention, therefore, it can be challenged and canceled, giving a way to, way for the third parties to enter into license agreements, its validity is always assessed as a part of enforcement action, but only legally enforceable rights can be enforced.

Shorter period of time:
Some inventions require a lengthy protection and monopoly right. Utility systems provide a short period of time which may be unsuitable for these types of inventions done by MSMEs. Therefore, this model for some inventions is not in pace to provide them a lengthy commercial life.

Risk of over reliance by MSMEs:
Small and medium sized enterprises are more relied and inclined on utility systems because of lower cost, easy way and simple application process as compared to regular patents which are complex and expensive. Because of this MSMEs or SMEs can miss out on a broader protection framework that a patent could provide and they can face difficulties in enforcing the utility patent in a competitive market.

Overlapping protection with patents:
Utility patents and regular patents are similar in terms of subject matter therefore a significant overlap can be seen which can lead to confusion within stakeholders and the marketplace making it unclear about an appropriate form of protection for a specific invention.

Potential for abuse:
Because of a flexible criteria and low threshold for obtaining protection. This tool can be used for 'patent trolling.'[54] That is where rights are utilized to intimidate or to threaten businesses with litigation. Even when the utility patent is of questionable value leading to uncertainty for businesses legally, especially for MSMEs and SMEs.

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[54] Avellum, *Utility Model and Patent Trolling: Window of Opportunities Seemingly Closed*, https://avellum.com/utility-model-and-patent-trolling-window-of-opportunities-seemingly-closed/ (last accessed on November 3, 2024).

Lack of international harmonization:

Utility patents have, countries have their own utility model systems and are not governed globally, unlike patents which are governed by PCT. Therefore, varying requirements and rules for utility models create confusion for inventors who seek international protection, giving them a limited scope in effectiveness of these patents.

Market perception and value:

They are often viewed as weak patents which are less prestigious and less valuable because they only cover trivial or incremental innovations. This leads to lower market interest, reducing their commercial value, limiting the use of licenses as a business and may not contribute significantly to technological advancements.

UTILITY MODEL SYSTEMS AND MSMEs IN INDIA

Salient features of this system include-

- An exclusive protection right is granted by Utility Patents.
- Novelty is generally required; the standards of novelty vary from vary in different jurisdictions.
- The standard for innovation and inventive steps is considerably less based on country to country.
- Utility patents are best suited for incremental improvements in inventions in many jurisdictions.
- A preliminary procedure review is only necessary in granting utility rather than substantive examination.
- It confers rights similar to the rights provided by patent laws but the period of protection is shorter.
- Period of protection ranges from 6 to 15 years unlike regular patents which ranges to 20 years.
- Utility patents are less costly to maintain and obtain.
- Quicker registration is provided by utility patents than that of normal patents because utility patent application does not require much examination before registration in many jurisdictions.

Conditions fostering the need for applying utility patents-

- For innovations with minor improvements.
- For faster registration
- For inventions with low capital incentive
- For innovations which are naturally incremental.
- For innovations which are natural as tangible.
- For innovations where patenting cost is more than the budget allocated to the innovation.

Utility patents are not recognized in India; therefore, Indian companies can only seek patents in the normal patent system. Currently, India is working on establishing itself as the strongest IP system and is also a center for SMEs business relying on new methods and technologies enhancing minor inventions or reviewing existing items according to the changing demands of the market. India's industrialization has paced in recent years, increasing India's FDI and export in the global world. As the country prospers and grows its market, bringing a possibility for a large number of people to file patents for their inventions. As this system creates more employment and has less incentive regarding capital, giving it a prominent place in India's social and economic development. Therefore, a strong intellectual, a strong legislation on intellectual property is needed for safeguarding the non-disclosure of innovations brought by businesses, and MSMEs for growing new investments in the country. A WTO cell for MSME was established by Government of India for awaring them about IP protection system so that they can take advantage of the intellectual creation.[55] Despite this, India still needs to establish a utility system model for safeguarding innovations which are not covered under a regular patent system. To provide benefit to the consumer and producer in the market of a less innovative invention Due to less investment and resources, India's MSME are not able to do proper R&D and only focuses on producing goods, facing a lot of competition not only from each other but from imported goods also so as to be a floated in the market by making improvements in the existing good to prove their existence and for survival. However, these innovations are underestimated because they are short-lived due to the intensive competition from domestic and foreign competitors.[56] Even with the stronger economic growth, good scientific workforce, and expansion of the industrial sector, the IP protection system is quite low in India compared to other countries like South Korea, Japan and China.[57] This demonstrates that India's IP laws are insufficient to safeguard the advanced IPR system worldwide. India needs to advance its local innovation to drive economic growth by accommodating in many levels the industrial operation for development of the economy. India also requires utility patent protection because of the numerous benefits mentioned above. It also benefits MSMEs since they lack funds for examinations and trials, paying hefty patent fees in the normal patent system. 'Sub-patentable ideas' can better protect MSMEs by granting protection, which can also be a solution to foreign IP, aiding in the preservation of countries, indigenous innovations and economy which is very open to intimidation

[55] Ministry of Micro, Small & Medium Enterprises, *Special Schemes for the Development of MSMEs*, https://www.dcmsme.gov.in/schemes/specschm.pdf.
[56] See supra note 48.
[57] See supra note 29.

and misuse both abroad and home.[58] By lowering exploitation rights, patentability standards and cost of registration, the government can motivate industries inventions of rural areas which are not able to fulfill criteria of patentability, thus can be protected in the category of utility model. It is a newer feature in patent law and it is especially useful in India and other developing countries. Therefore, such a patent system can be a boon, since they fail to protect their inventions, suffering losses in business growth. Utility patents can be an effective safeguard in protecting inventions, further boosting business growth, encouraging MSMEs under the government initiative of 'Make in India.'[59] Above all, this is a most important type of patent requiring a lot of skills in drafting and prosecution of the application of patent in a patent office. Thus, adoption of this system would be crucial for India.

Key Considerations while developing Utility Patent System in India-

Inventive step threshold-

A utility model should be established with inventiveness that is with less stringent requirements and easier registration process. It should be less complex technically so that SMEs and MSMEs can be benefited through it. The invention should be innovative and should have utility, but inventive steps must be done away as compared to the regular patent system.

Criteria of novelty-

The standard of novelty criteria should not be lowered and should be an essential in the utility model also. However, absolute novelty should be applied for considering incremental invention at time of granting utility model protection.

Grace Period-

Around 6-month to 12-month grace. should be given to the innovators for protection of their innovation from unauthorized commercialization of their invention. It should be beneficial to MSMEs who are tending to bring their innovation in commercial or scientific limelight to attract investors.

Transmutation-

Applicant should be able to convert their patent application to utility model application. If the invention is lacking inventive steps or is rejected on the basis of obviousness but it has a potential that it can be commercially exploited by the competitors.

Legislation-

A separate legislation is needed in respect of this system for protection to maintain and to separate the organization of the utility system.

Protection period and formal examination-

The protection. should be less than a regular patent application. That is, it can be less or up to 10 years and a stringent examination process is not essential for a utility model which can be conducted by examiners and controllers.

Registration procedure-

For securing utility protection, the registration should not be complex but should be simple and fast. The filing of grant should be between 6 months to 1 year and in case of issuance of reports of examination, the objection should be filed within 2 to 3 months of issuance, similar to that of designs.

India's Position and Future Policy Recommendations

As a WTO member and a signatory to the Paris Convention, India has the flexibility to introduce a utility model system while ensuring compliance with international standards. Given its growing role in global innovation, India can learn from international models to design an effective utility model framework. Potential recommendations include:

- **Aligning with International Best Practices:** India can integrate lessons from Germany's rapid grant system, China's MSME-focused incentives, and Japan's dual patent-utility model approach.
- **Strengthening Examination Standards:** To prevent frivolous filings, India should implement limited but effective examination procedures that strike a balance between accessibility and reliability.
- **Ensuring TRIPS Compliance:** Any new legislation should align with India's broader IP commitments under WTO regulations, ensuring seamless global integration

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[58] Sajid Sheikh, *Exploring the Possibility of Utility Model Protection in India*, 2023, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4636094 (last accessed on November 3, 2024).
[59] See supra note 32.

CONCLUSION

There is a need for India to establish laws particularly for small inventions, for advocating a utility model system to bridge gaps in IPR protection. The legislation would be crucial for supporting national interest and rapid advancement in the field of science and technology. These models do not have a lengthy process and requirements for granting patents for a shorter period of time without any renewal or extension. As India lags and delays in granting of patents which eventually shorten the term of the patent, a utility model law can provide protection for innovations more rapidly, MSMEs would be encouraged to provide more incremental innovations and undertake research, without investing much capital incentive, which would ultimately facilitate development of the nation. Howsoever, certain safeguards should be incorporated, the policy makers should seek all the aspects that this system provides an easy supplement to the patent system, not to impede the way of innovation and the flow of creativity in the nation. It should not negate the concept of patent system as well as prolonged monopoly should not be given to erode the very model for MSMEs. Utility patent system in India can bridge the gap between patentable and non-patentable inventions, giving a thrust to national and local markets, which can be achieved only through a legislation on utility protection rights in India, which can further boost the ranking of India in Global Innovation Index and International IPR Index. A 'Discussion Paper on Utility Model' inviting recommendations from the stakeholders on incorporation of utility model was floated by the Department for Promotion of Industries and Internal Trade (DPIIT) under the Ministry of Commerce.[60] Even industry experts advocate for a suitable utility model system for India, particularly for motivating MSMEs, startups and small innovators in IP creation.[61]

[60] See supra note 1.
[61] Id.