Perspective: Indian Patents Making A Mark

For Prelims: World Intellectual Property Organization(WIPO), Patent, Trademarks, Intellectual Property Rights (IPR)

For Mains: Emergence of Innovation culture, Role of Increasing patent in economic growth

What is the Context?

The <u>World Intellectual Property Organization (WIPO)</u> has reported a **significant surge** in patent filings by Indian applicants, marking a remarkable **32% growth in 2022**.

- This achievement extends India's impressive 11-year run and underscores the nation's prowess in fostering innovation.
- Intellectual Property Rights:
 - The WIPO establishes regulations to grant exclusive rights to the inventors or creators of intellectual property.
 - This facilitates them in **deriving commercial benefits** from their creative endeavors or reputation, constituting a form of legal protection known as <u>Intellectual Property Rights</u> (<u>IPR</u>).
- Types:
 - The primary categories of intellectual property encompass patents for inventions, trademarks for branding, copyrights for artistic and literary works, trade secrets for confidential business information, and industrial designs for product appearance.

What Factors Contribute to the Unprecedented Growth in Indian Patent Filings?

- Policy Reforms:
 - **Recent policy reforms** have **streamlined** and **expedited** the patent filing process in India.
 - Initiatives such as the <u>National IPR Policy</u>, and IP Mitra have created a **conducive environment** for innovation and intellectual property protection.
- Ease of Doing Business:
 - Improvements in the <u>ease of doing business</u>, including **online filing systems** and reduced bureaucratic hurdles, have made it more attractive for individuals and companies to file patents in India.
 - **Digital platforms and simplified procedures** have contributed to the increased ease of navigating the patent application process.
- Enhanced Innovation, R&D, and Technology:
 - A growing innovation ecosystem, supported by incubators, accelerators, and research institutions, has fueled an upsurge in inventive activities.

- **Rapid advancements in technology,** especially in areas like <u>artificial intelligence</u>, <u>biotechnology</u>, **and** <u>renewable energy</u>, have led to a spike in patent filings.
- Global Recognition and Connectivity:
 - The **international recognition of India as a hub for innovation** has attracted global companies and inventors to file patents within the country and exposed Indian innovators to international best practices and standards
- Commercialization Opportunities:
 - **Increasing awareness** of the **commercial value** of intellectual property has driven businesses and individuals to protect their innovations through patents.
- Judicial Implementation:
 - Over the recent years, the **entire judicial system in India** has undergone a **significant transformation**. Presently, when seeking enforcement or bringing a matter to court with respect to IPR violations, **decisions can be obtained within a matter of weeks** or even days.

How has the Dynamics of Patent Filing Changed in India's Context?

- India holds the sixth-largest number of patent applications globally, showcasing its presence and significance in the international intellectual property landscape.
- The context of global rankings provides a perspective on India's position relative to other major players.
 - China's lead, followed by the US, Japan, South Korea, and the EU, emphasizes the competitive nature of the global innovation landscape.
 - Lately, a notable shift is observed with more Indian residents filing patents, surpassing foreign entities for the first time.
- There is a substantial 47% increase in resident patent filings with the Indian Patent Office in 2022, indicating a robust and growing interest among Indian residents to protect their innovations.
 - The **acknowledgement of this surge by India's Prime Minister** reflects a positive outlook for India's future. It indicates the government's recognition of the role of intellectual property in national development.

What are the Factors Leading to Patent Application Improvements?

- Government Initiatives:
 - Establishment of Centre of Excellence in Intellectual Property
 - Providing IP Facilitation Support to MeitY Societies and Grantee Institutions
 - Providing Financial Support to <u>Startups</u> and <u>SMEs</u> for International Patent Filing through SIP-EIT Scheme
 - Government support in r&d is also exemplified by the role of <u>National Research Foundation</u> (<u>NRF</u>).
 - Significant revisions to India's IPR laws since 1999:
 - National IPR Policy
 - National (IP) Awareness Mission (NIPAM)
 - Kalam Program for Intellectual Property Literacy and Awareness Campaign (KAPILA)
- Role of Innovators:
 - Recognition of the contributions of Indian researchers, particularly during the challenging <u>COVID-19</u> period, underlining the importance of innovation in times of crisis.
- Catalyst for Innovation:
 - The concept of "Catalyst for Innovation" underscores the **pivotal role that collaborative endeavors between academia and industry play** in fostering and advancing innovation.
 - E.g. **Collaborative Ecosystem, Knowledge Transfer, Interdisciplinary Approaches,** Resource Pooling, Accelerated Research and Development, Technology Transfer and Commercialization, Innovation Culture, Global Competitiveness etc.
- Key Contributing Sectors:
 - Various sectors, including electronics, communication, pharmaceuticals, biotechnology, mechanical engineering, electrical engineering, computer science and

software, automotive, chemical and materials science, and **medical devices**, contribute significantly to patent filings in India, showcasing innovations in their respective fields.

Note:

 In the <u>Global Innovation Index (GII) 2023</u> rankings by WIPO, India secured the **40th position out of 132 countries.** This marks an improvement from the 46th position in 2021 and the 81st rank in 2015.

What is the Role of Intellectual Property in Fostering Economic Growth?

Encouraging Innovation and Research:

- Granting exclusive rights through patents incentivizes innovation. Companies and individuals are more likely to invest in research and development when they know they can protect their inventions, leading to technological advancements and increased competitiveness.
- Attracting Foreign Direct Investment (FDI):
 - Countries with robust intellectual property protection regimes tend to attract more FDI.
 A well-protected IP environment provides confidence to foreign investors that their innovations will be safeguarded, encouraging them to invest in India.
- Fostering Entrepreneurship and Startups:
 - Intellectual property rights enable startups and entrepreneurs to protect their unique ideas and products. This protection is crucial for attracting investors and creating a conducive environment for the growth of startups.
- Promoting Technology Transfer:
 - IP rights facilitate technology transfer through licensing agreements and collaborations. This allows businesses to access new technologies and knowledge, promoting the spread of innovation across different sectors.
- Creating a Knowledge-Based Economy:
 - Protection of copyrights and trademarks encourages the creation and

commercialization of intellectual assets in fields such as literature, arts, music, and branding. This contributes to the development of a knowledge-based economy.

- Increasing Export Competitiveness:
 - Branding and Trademarks: Intellectual property, particularly trademarks, helps build brand recognition and trust in the global market. This, in turn, enhances the competitiveness of Indian products and services in the international marketplace.
- Supporting Traditional Knowledge and Cultural Heritage:
 - Protection of <u>Geographical Indications (GI)</u> helps safeguard traditional knowledge and products unique to specific regions. This is important for preserving cultural heritage and promoting economic activities tied to traditional practices.
- Enhancing the Value of Intangible Assets:
 - Intellectual property assets contribute significantly to the overall value of a company. Properly managed IP portfolios can be leveraged for licensing, franchising, or even as collateral for obtaining loans, thus contributing to the economic value of businesses.
- Job Creation and Economic Impact:
 - A strong IP framework **fosters an innovation ecosystem** that, in turn, leads to the creation of new industries and job opportunities.
- Meeting Global Standards:
 - Adhering to international IP standards is essential for global trade. By aligning with global IP standards, India can participate more effectively in international trade agreements and partnerships.
- Promoting Green Technologies:
 - Encouraging patents for <u>environmentally friendly technologies</u> incentivizes the development and adoption of sustainable practices, contributing to both economic growth and environmental sustainability.

What are the Challenges Faced by Innovators in the Patenting Process?

Procedural Complexity:

- The patent application process **involves complex documentation and filing procedures.** Innovators may find it challenging to navigate through the extensive paperwork and adhere to procedural requirements.
- Lengthy Approval Process:
 - The patent approval process in India can be time-consuming. Delays in the examination and grant of patents may discourage innovators, especially those in fastpaced industries, as it hampers their ability to enforce their rights promptly.
- Backlog of Patent Applications:
 - India has experienced a backlog of patent applications awaiting examination. This backlog can lead to **significant delays in the processing of patent applications**, impacting the timely protection of innovations.
- Limited Awareness and Education:
 - Many innovators, especially individuals and small businesses, may have limited awareness about the importance of intellectual property rights and the patenting process. Lack of education can result in missed opportunities for protection.
- Resource Constraints:
 - The **costs associated with preparing and filing a patent application**, along with maintenance fees, can be a significant burden for individual inventors and small businesses. Resource constraints may limit their ability to protect their innovations.
- Stringent Patentability Criteria:
 - Stringent patentability criteria, especially regarding subject matter eligibility, can pose challenges. Certain innovations, particularly in fields like software and business methods, may face hurdles in meeting the criteria for patentability.
- Enforcement Issues:
 - Even after obtaining a patent, **enforcing intellectual property rights can be a costly** and time-consuming process. Innovators may face challenges in pursuing legal action against infringers due to the associated legal costs.
- Biopiracy and Traditional Knowledge Issues:
 - Innovators working with traditional knowledge or biodiversity may face challenges related to biopiracy, where their inventions are exploited without proper consent or benefit-sharing agreements.

What is the Future Trajectory of Indian Patent Filings?

- The future trajectory of Indian patent filings appears promising, marked by continued growth driven by various factors. Government initiatives, emphasizing intellectual property-friendly policies and economic reforms, are expected to foster innovation.
- The rapidly advancing technology landscape, especially in AI, biotechnology, and green technologies, will likely contribute to an increased demand for patent protection. The thriving startup ecosystem, coupled with efforts to raise awareness about intellectual property rights, is anticipated to boost patent filings.
- Global collaboration and government support programs, offering financial incentives for research and development, may facilitate knowledge sharing and contribute to a rise in patent applications.
- International recognition of Indian innovations may lead to a surge in global patent applications. Aligning Indian patent policies with global standards is seen as a crucial step to enhance the credibility and attractiveness of the Indian patent system. Overall, the combination of these factors suggests a positive trajectory for the future of Indian patent filings.
- Efforts are being taken to address gender disparity in global patent applications, where only
 16.2% of inventors in 2022 were women, include promoting STEM education, establishing
 mentorship programs, facilitating networking platforms, providing funding opportunities,
 offering specialized IP training, and promoting a cultural shift towards inclusivity and equal
 opportunities in innovation and intellectual property.

Conclusion

The surge in Indian patent filings **signifies a remarkable achievement**, reflecting the **nation's commitment to innovation and intellectual property protection**. With a **strategic focus** on key sectors, **collaborative efforts**, **and government-friendly policies**, India is poised for continued growth in patent filings. The future holds promise, with a **proactive approach to address challenges** and **foster a conducive environment** for innovation and economic development.

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UPSC Civil Services Examination, Previous Year Question (PYQ)

Prelims:

Q1. What is/are the recent policy initiative(s)of Government of India to promote the growth of manufacturing sector? (2012)

- 1. Setting up of National Investment and Manufacturing Zones
- 2. Providing the benefit of 'single window clearance'
- 3. Establishing the Technology Acquisition and Development Fund

Select the correct answer using the codes given below:

(a) 1 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Ans: D

Q2. With reference to the 'National Intellectual Property Rights Policy', consider the following statements: (2017)

- 1. It reiterates India's commitment to the Doha Development Agenda and the TRIPS Agreement.
- 2. Department of Industrial Policy and Promotion is the nodal agency for regulating intellectual property rights in India.

Which of the above statements is/are correct?

- (a) 1 only (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Ans: (c)

Q3. Consider the following statements: (2019)

1. According to the Indian Patents Act, a biological process to create a seed can be patented in India.

- 2. In India, there is no Intellectual Property Appellate Board.
- 3. Plant varieties are not eligible to be patented in India.
- 4. Which of the statements given above is/are correct?

(a) 1 and 3 only(b) 2 and 3 only

- (c) 3 only
- (d) 1, 2 and 3

Ans: (c)

<u>Mains:</u>

Q. How is the Government of India protecting traditional knowledge of medicine from patenting by pharmaceutical companies. **(2019)**

Q. In a globalized world, Intellectual Property Rights assume significance and are a source of litigation. Broadly distinguish between the terms—Copyrights, Patents and Trade Secrets. **(2014)**

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