

BARRIERS FACED BY WOMEN INVENTORS IN ACCESSING INTELLECTUAL PROPERTY PROTECTION

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ABSTRACT

The present era is marked by significant milestones for women across various fields. Although women inventors have existed in the past, the range of opportunities and areas available for invention today is broader than ever before. The women-led movement is steadily gaining momentum, reflecting a transformative shift in societal attitudes and increased recognition of women's capabilities as innovators, leaders, and change-makers across diverse sectors. However, it is not easy for women to make a mark as inventors, as there are many barriers which are faced by women as they put their intellect and abilities to good use. The study highlights key obstacles such as a lack of awareness and legal literacy regarding IP rights, financial constraints associated with filing and maintaining IP registrations, procedural complexities, limited institutional support, and persistent gender biases within innovation ecosystems. It further explores how these barriers affect women, particularly those from marginalised and rural backgrounds, thereby reinforcing existing inequalities in innovation and technological advancement. Adopting a doctrinal approach, the paper analyses relevant IP laws, policies, and institutional frameworks, complemented by secondary data. The paper concludes by emphasising the need for gender-responsive IP policies, enhanced awareness programmes, simplified procedures, and targeted institutional support to ensure equitable access to IP protection for women inventors. Strengthening access to IP rights is essential not only for empowering women inventors but also for fostering inclusive and sustainable innovation.

KEYWORDS: Women inventors, Intellectual property rights, Gender inequality, Access to IP protection, Innovation.

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INTRODUCTION

Intellectual Property (IP) protection is a key mechanism for recognising and securing innovations. It confers exclusive rights to inventors, enabling them to commercialise, profit from, and be credited for their inventions. Strong IP rights are widely acknowledged as drivers of technological advancement, economic growth, and social development. However, access to these protective mechanisms is not evenly distributed across socio-demographic groups. Globally, women inventors are significantly underrepresented in IP systems. Despite increasing participation of women in science and engineering, data consistently show lower rates of patent applications and grants among women compared to men. This gap reflects not a lack of ingenuity but systemic barriers that impede women's full participation in innovation ecosystems.

Scholarly research indicates that women face distinct challenges in pursuing IP protection. These challenges include limited access to information and awareness about IP rights, gender biases in legal and institutional processes, unequal access to resources and networks, and socio-cultural expectations that often do not give preference to women's innovation work. Moreover, women entrepreneurs and inventors frequently report difficulties in accessing funding, legal counsel, and mentorship that could support their IP strategies. Such barriers are made worse in developing countries where legal literacy and institutional support for IP are already uneven. Consequently, the underutilization of IP protection by women has implications not only for gender equity but also for the economy. In the Indian context, although there have been strides in enhancing IP infrastructure and awareness campaigns, women inventors continue to be underrepresented in patent filings and IP commercialisation. National statistics reveal a persistent gender gap, women constitute a smaller share of inventors listed on patent applications, and fewer women are seen in high-impact technology sectors. Institutional reports and rights-based advocacy groups have highlighted structural impediments, including a lack of gender-inclusive IP education, limited mentorship opportunities, and constraints in accessing formal legal mechanisms. This situation reflects broader patterns of gender inequality in science, technology, engineering, and mathematics (STEM) fields, wherein women's innovations may remain unprotected and undervalued.²⁶

²⁶ Banerjee, D. (2026, February 11). *Gender gap in STEM learning widens, despite female intake at IITs doubling in 7 years*. *The Indian Express*. <https://indianexpress.com/article/education/gender-gap-science-technology-stem-learning-widens-female-intake-rises-iit-admissions-doubled-jee-main-2026-advanced-unesco-10525028/>

This study, therefore, investigates the barriers faced by women inventors in accessing IP protection, with an emphasis on legal, institutional, socio-economic, and cultural factors that shape women's experiences. By centring women's voices and experiences, the research seeks to inform both academic understanding and practical strategies for advancing gender equity in the innovation landscape.

Even though women's contributions to innovation, science, and entrepreneurship are increasingly acknowledged, women inventors are still greatly underrepresented in intellectual property systems, especially in patent filings and commercialisation. Although legal frameworks governing intellectual property are formally gender-neutral, women continue to face structural, institutional, socio-economic, and cultural barriers that hinder their ability to access, understand, and effectively utilize IP protection mechanisms.

Accordingly, the research problem addressed in this study is:

What are the key barriers faced by women inventors in accessing intellectual property protection, and how can legal and institutional frameworks be made more gender-responsive to promote inclusive innovation?

INTELLECTUAL PROPERTY LAWS IN INDIA

There exists a wide and comprehensive framework of intellectual property laws in India governing various forms of creative and inventive activity, including copyrights, patents, trademarks, industrial designs, geographical indications, plant varieties, and semiconductor integrated circuit layout designs²⁷, to promote innovation, creativity, and economic growth. This multifaceted regime reflects the country's effort to align domestic legislation with international standards while responding to the needs of a rapidly evolving knowledge economy. By providing distinct forms of protection tailored to different categories of intellectual output, the framework seeks to encourage investment in research and development, facilitate technology transfer, and enhance competitiveness in global markets. At the same time, it aspires to balance the interests of creators with varying concerns such as access, dissemination of knowledge, and public welfare. India's intellectual property framework has also developed in close engagement with the international legal order. As a member of the World Trade Organisation²⁸, India is bound by the TRIPS Agreement²⁹, which sets minimum

²⁷ Staff Writer. (2026, February 7). *Intellectual property law in India: Innovation and rights*. RTIwala. <https://rtiwala.com/content/intellectual-property-law-in-india-innovation-and-rights/>

²⁸ Kanoonpedia. (2025, April 20). *Intellectual property rights post-TRIPS agreement*. Kanoonpedia. <https://kanoonpedia.com/intellectual-property-rights-post-trips-agreement/>

²⁹ Borah, A. (2024, April 10). *The impact of TRIPS Agreement on Indian intellectual property law*. Legal Vidhiya. <https://legalvidhiya.com/the-impact-of-trips-agreement-on-indian-intellectual-property-law/> (accessed February 10, 2026) (legalvidhiya.com)

standards for the protection and enforcement of intellectual property rights. In addition, India participates in various treaties administered by the World Intellectual Property Organization (WIPO)³⁰, facilitating cooperation, harmonisation of procedures, and cross-border recognition of rights. These international commitments influence domestic reforms, modernization of administrative practices, and the adoption of global best practices, ensuring that India's IP regime remains responsive to both national priorities and international obligations.

Copyrights: Copyright law forms part of intellectual property law and protects original works by giving creators control over their use and distribution. The Copyright in India is governed by the Copyright Act 1957.³¹ It permits creators to derive commercial value from their works while promoting broader creative and innovative work. It safeguards only the expression of an idea, not the idea. The rights are generally good for a term of 60 years, though different kinds of works have varying terms.³²

Trademarks: A trademark refers to a mark that can be visually represented and can distinguish the goods or services of one person from those of others.³³ After registration, a trademark is valid for 10 years and can be renewed from time to time.

A registered trademark confers exclusive rights on its owner and restricts others from using similar marks that could cause confusion among consumers. This protection helps businesses preserve their brand identity and goodwill.³⁴

Patents: Patent law grants an inventor an exclusive legal right from the government for a limited period in return for disclosing the invention to the public. This right restricts others from making, using, selling, or reproducing the patented invention without authorization. The Indian Patents Act, 1970³⁵ confers exclusive patent rights for a period of twenty years from the

³⁰ World Intellectual Property Organization. (2019, June 7). *India joins three key WIPO international classification treaties*. https://www.wipo.int/portal/en/news/2019/article_0021.html (accessed February 12, 2026) (wipo.int)

³¹ Government of India, Ministry of Commerce & Industry. (1957). *The Copyright Act, 1957* (PDF). Copyright Office. <https://copyright.gov.in/documents/copyrightrules1957.pdf>

³² The Legal School. *Copyright law in India: Meaning, history, objectives, nature & copyright infringement*. TheLegalSchool.in. <https://thelegalschool.in/blog/copyright-law-in-india>

³³ Kumar, A. (2025, August 7). *What can and can't be registered as a trademark in India*. QuickCompany. <https://www.quickcompany.in/articles/What%20can%20be%20trademarked%20in%20India,%20trademark%20registration%20India,%20registrable%20trademarks,%20types%20of%20trademarks%20India,%20non-traditional%20trademarks,%20trademark%20eligibility%20India,%20Indian%20trademark%20law,%20brand%20name%20registration>

³⁴ Legismith Partners LLP. (2025, April 16). *Trademark registration in India: A complete guide 2025*. Legismith. <https://legismith.com/trademark-registration-in-india/>

³⁵ World Intellectual Property Organization. *The Patents Act, 1970 (India) – WIPO Lex*. WIPO Lex: IP Laws, Treaties & Judgments. <https://www.wipo.int/wipolex/en/legislation/details/22960/> (wipo.int)

date of filing. Such exclusive protection promotes innovation, safeguards intellectual property, and contributes to economic growth, among other advantages.³⁶

Industrial Designs: In India, industrial designs are registered and protected under the Designs Act, 2000³⁷, which provides legal protection to novel and original features relating to shape, configuration, surface patterns, ornamentation, or the arrangement of lines or colours applied to an article, provided such features are visually appealing in the finished form.³⁸

Trade Secrets: A trade secret is defined as any information that is not generally known or easily accessible to others and provides a competitive edge to its holder³⁹. Although Indian intellectual property laws do not expressly recognise trade secrets, indirect protection is available through certain legal provisions. For example, remedies under the Trademarks Act, 1999⁴⁰ relating to unfair competition may be invoked where a competitor misappropriates confidential information to gain an unfair commercial advantage.⁴¹

Geographical Indications: Geographical indications (GIs)⁴² constitute a significant category of intellectual property that provides legal protection to products originating from a specific geographical region, thereby ensuring their authenticity, quality, and unique characteristics. GIs hold considerable value in safeguarding traditional knowledge, promoting rural development, and enhancing economic opportunities for local communities and nations.⁴³ The Geographical Indications of Goods (Registration and Protection) Act, 1999, which came into effect in 2003, provides for the registration and better protection of geographical indications relating to goods.⁴⁴

³⁶ Singh, S. (2025, February 15). *Understanding patent law in India — A comprehensive guide*. LawArticle. <https://lawarticle.in/understanding-patent-law-in-india-a-comprehensive-guide/>

³⁷ Wahab, M. I. (2025, November 17). *The Designs Act, 2000: A comprehensive overview of industrial design protection in India*. Legal Service India. <https://www.legalserviceindia.com/Legal-Articles/the-designs-act-2000-a-comprehensive-overview-of-industrial-design-protection-in-india/>

³⁸ Office of the Controller General of Patents, Designs & Trade Marks. (2024). *Designs*. Intellectual Property India. <https://ipindia.gov.in/designs/designs>

³⁹ The Legal School. *Trade secrets: FAQs and protection* (blog). The Legal School. <https://thelegalschool.in/blog/trade-secrets>

⁴⁰ Shivam. (2025, November 9). *The Trademarks Act, 1999 – Executive summary and bare act*. Corrida Legal. <https://corridalegal.com/the-trademarks-act-1999-executive-summary-and-bare-act/>

⁴¹ Vadehra, S., Mittal, S., & Bishnoi, R. (2025, May 12). *Trade secret protection in India: A comprehensive overview*. Kan and Krishme. <https://kankrishme.com/trade-secret-protection-in-india-a-comprehensive-overview/>

⁴² Guidely. (2025, November 6). *List of geographical indication tags in India*. Guidely. <https://guidely.in/blog/list-of-geographical-indication-tags-in-india> (guidely.in)

⁴³ Rana, A. (2025). *Geographical indications in India: Strengthening legal protection and empowering rural communities*. *Indian Journal of Legal Review (IJLR)*, 5(1), 898–903. <https://doi.org/placeholde>

⁴⁴ Geographical Indications of Goods (Registration and Protection) Act, 1999, No. 48, Acts of Parliament, India (1999). Retrieved from <https://www.indiacode.nic.in/bitstream/123456789/1981/5/A1999-48.pdf>

Bio-Diversity: In response to biodiversity degradation and the need to regulate access to biological resources, the Government of India enacted the Biological Diversity Act, 2002⁴⁵, in furtherance of its obligations under the Convention on Biological Diversity. The legislation aims to conserve biological diversity, ensure its sustainable use, facilitate fair and equitable benefit-sharing, and safeguard traditional knowledge along with the rights of local and indigenous communities.⁴⁶

Semiconductor integrated circuit layout designs: The Semiconductor Integrated Circuits Layout-Design Act, 2000⁴⁷, establishes the statutory mechanism for safeguarding the layout designs of integrated circuits, encouraging technological advancement and innovation within India's semiconductor sector. The legislation is consistent with the obligations laid down under the TRIPS (Trade-Related Aspects of Intellectual Property Rights) Agreement, which mandates member states to protect such designs.⁴⁸

Taken together, these measures create a structured legal environment aimed at encouraging creativity, rewarding inventiveness, and ensuring that innovators are able to derive economic and moral benefits from their work. The framework reflects India's commitment to balancing private rights with public interest while fostering a culture of research, development, and technological progress. At the same time, the real strength of this legal architecture lies in how effectively it can be accessed and utilized by diverse sections of society.

A framework, however comprehensive in design, achieves its purpose only when innovators are aware of their rights, supported in navigating procedures, and capable of enforcing entitlements without excessive burdens. Persistent gaps in outreach, affordability, and institutional responsiveness may prevent certain groups particularly women and marginalized innovators from fully benefiting from the protections offered. Ensuring inclusivity in the functioning of these laws is therefore of prime importance in realising their transformative potential.

INSTITUTIONAL FRAMEWORKS FOR INTELLECTUAL PROPERTY RIGHTS IN INDIA

⁴⁵ nbaindia.org/uploaded/pdf/cleanBDACT.pdf

⁴⁶ Mulla, A. S. (2025, month day). *Biodiversity and the law: A dialogue for conservation*. Life & Law. <https://lifeandlaw.in/biodiversity-and-the-law/>

⁴⁷ Government of India, Legislative Department, Ministry of Law & Justice. (2000). *The Semiconductor Integrated Circuits Layout-Design Act, 2000* (Act No. 37 of 2000) (PDF). <https://lexexcel.com/wp-content/uploads/2023/12/The-Semiconductor-Integrated-Circuits-Layout-Design-Act-2000.pdf>

⁴⁸ ICT-IPR. [Title of the blog post]. ICT-IPR. https://ict-ipr.in/blogs_detail/22/ (accessed February 10, 2026)

India's intellectual property rights regime is supported by a well-defined institutional framework that ensures policy formulation, administration, enforcement, and adjudication of IPR. The Ministry of Commerce and Industry acts as the nodal authority, with the Department for Promotion of Industry and Internal Trade (DPIIT)⁴⁹ playing a central role in implementing the National IPR Policy, 2016, and coordinating IPR-related matters at both national and international levels. The policy adopts a comprehensive approach, covering the entire life cycle of intellectual property rights. From generating awareness to facilitating commercialisation and practical implementation, it seeks to address each critical stage systematically. It has been recognised as a balanced framework that seeks to harmonise developmental objectives with the broader public interest⁵⁰.

The Office of the Controller General of Patents, Designs and Trade Marks (CGPDTM)⁵¹ is an agency under the Department for Promotion of Industry and Internal Trade, which administers the Indian law of Patents, Designs and Trade Marks. It administers patents, trademarks, designs, and geographical indications through specialised registries, while the Copyright Office⁵² oversees copyright protection. The Copyright Office functions under the immediate control of a Registrar of Copyrights appointed by the Central Government, acting in accordance with its superintendence and directions⁵³. Following the abolition of the Intellectual Property Appellate Board (IPAB)⁵⁴, High Courts now exercise jurisdiction over IPR disputes and appeals, strengthening judicial oversight. This transition aims to streamline the adjudicatory process while promoting greater consistency and specialization in the resolution of IP disputes. High Courts are now empowered to hear patent appeals as well as revocation petitions that were earlier within the domain of the IPAB. The development has also resulted in the creation

⁴⁹ Government of India, Integrated Government Online Directory. (2026). *Department for Promotion of Industry and Internal Trade (DPIIT) — organization details*.

<https://igod.gov.in/organization/ZmQzG3sBNf80hyXhNfrU> (igod.gov.in)

⁵⁰ Krishnan, R. *National IPR Policy 2016*. Legal Services India.

<https://www.legalservicesindia.com/article/2102/National-IPR-Policy-2016.html> (accessed February 10, 2026)

⁵¹ European Innovation Council and SMEs Executive Agency. *Office of the Controller General of Patents, Designs and Trade Marks (CGPDTM)*. European Union Intellectual Property Helpdesk. https://intellectual-property-helpdesk.ec.europa.eu/organisations/office-controller-general-patents-designs-and-trade-marks-cgpdmt_en (accessed February 10, 2026) (intellectual-property-helpdesk.ec.europa.eu)

⁵² Copyright Office. *Copyright Office India*. Government of India. <https://copyright.gov.in/> (accessed February 10, 2026)

⁵³ Government of India. (1957). *Copyright Act, 1957*, § 9 (as amended). Ministry of Commerce & Industry, Department for Promotion of Industry and Internal Trade.

⁵⁴ Kaushik, V. (2021, May 16). *Abolishment of IPAB: Changes to the IP regime*. IIPRD. <https://www.iiprd.com/abolishment-of-ipab-changes-to-the-ip-regime/>

of dedicated intellectual property divisions in several High Courts, notably in Delhi and Madras, which play a significant role in strengthening judicial capacity in IP adjudication ⁵⁵.

The Government of India has introduced a series of focused interventions to strengthen women's participation in intellectual property creation and protection, reflecting the broader objectives of the National Intellectual Property Rights (IPR) Policy to foster innovation, inclusivity, and equitable access to the IP system. Under the aegis of the Department of Science and Technology, programmes such as the Women Scientists Scheme-C (WISE-IPR)⁵⁶ within the WISE-KIRAN framework provide specialised training, skill enhancement, and professional pathways in patenting and IP management, thereby addressing awareness and capacity gaps among women innovators. Complementary support through fellowships, research reintegration opportunities, and infrastructure enhancement such as the Consolidation of University Research for Innovation & Excellence in Women Universities (CURIE) initiative further aligns with the Policy's emphasis on building IP awareness and facilitating commercialisation across diverse demographics. The Gender Advancement for Transforming Institutions (GATI) programme reinforces institutional reform by promoting gender-equitable practices within research organisations, supporting the Policy's mandate for inclusive innovation ecosystems. Additionally, financial incentives, including reduced fee structures offered by the Office of the Controller General of Patents, Designs and Trademarks ⁵⁷, aim to lower economic barriers to IP filings for women applicants and entrepreneurs. These initiatives operationalise key tenets of the National IPR Policy by enabling greater access, participation, and benefit-sharing for women within India's intellectual property regime.⁵⁸

Overall, these institutions and initiatives form an integrated framework aimed at promoting innovation, protecting creators' rights, and fostering a robust intellectual property ecosystem in India. Beyond their administrative and regulatory roles, these institutions are instrumental in shaping the accessibility and effectiveness of the intellectual property regime. Their

⁵⁵ de Leon, E. A. (2023, July 31). *India post-IPAB: Should other courts also have their own IP division?* Asia I P Law. <https://www.asiaiplaw.com/section/in-depth/india-post-ipab-should-other-courts-also-have-their-own-ip-division> (asiaiplaw.com)

⁵⁶ Government of India, Department of Science & Technology. (n.d.). *Women Scientist Scheme-C (WOS-C)*. India Science, Technology & Innovation. <https://www.indiascienceandtechnology.gov.in/programme-schemes/women-schemes/women-scientist-scheme-c-wos-c> (indiascienceandtechnology.gov.in)

⁵⁷ Press Information Bureau. (2021, August 1). *Simplified patent and copyright registration helping India become an innovation hub – Piyush Goyal* [Press release]. Government of India. <https://www.pib.gov.in/PressReleaseIframePage.aspx?PRID=1741227®=3&lang=2>

⁵⁸ Office of the Controller General of Patents, Designs & Trade Marks. (2025). *India's initiatives: Enhancing women's participation in innovation & IPR* [PDF]. Intellectual Property India, Government of India. https://ipindia.gov.in/writereaddata/Portal/Images/pdf/Publication_Women_in_IP.pdf (accessed February 10, 2026)

functioning determines how easily innovators can navigate procedures, obtain guidance, secure timely protection, and enforce their rights. While the framework has evolved to encourage efficiency, digitisation, and transparency, disparities in awareness, resources, and institutional outreach continue to affect different groups in unequal ways. In particular, women innovators often encounter additional structural and socio-economic constraints that limit their ability to fully benefit from the opportunities offered by the system. Therefore, critically evaluating institutional performance on the parameters of inclusivity becomes essential for building a truly participatory and innovation-driven IP ecosystem.

BARRIERS TO ACCESSING IP PROTECTION

Women possess immense innovative potential, yet their participation in intellectual property regimes remains constrained by multiple legal, financial, and institutional barriers.⁵⁹ These challenges are further aggravated by restricted access to networks, markets, and decision-making spaces that shape innovation ecosystems. Consequently, women's contributions often remain invisible, under-recognized, or inadequately commercialized. Addressing these disparities requires sustained attention to gender-responsive policies, simplified administrative mechanisms, and stronger institutional support structures that can enable women not merely to enter the system but to benefit from it meaningfully. A few such barriers faced by them are discussed below:

LACK OF AWARENESS AND LEGAL LITERACY REGARDING IP RIGHTS

A significant barrier to effective utilization of intellectual property rights is limited awareness⁶⁰ and legal literacy surrounding IP laws, particularly among women and marginalised innovators. WIPO Pulse 2025 findings reveal variations in awareness levels across regions. The survey highlights region-specific and demographic-specific patterns in awareness of intellectual property rights among women and youth, indicating that progress is uneven and highly contextual. Overall, the findings suggest that while global awareness of IP rights is improving, the nature and extent of this improvement vary significantly across regions and across different forms of IP protection⁶¹. The lack of awareness and legal literacy regarding IP rights acts as a

⁵⁹ Soni, B. (2024, October 4). *Women and IP: Accelerating innovation and creativity*. SonisVision. <https://www.sonisvision.in/blogs/women-and-ip-accelerating-innovation-and-creativity/>

⁶⁰ Confederation of Indian Industry – Intellectual Property Rights (CII-IPR). (2025). *Women in IP compendium*. <https://www.ciiipr.in/pdf/Women%20in%20IP%20Compendium%2013-12-2025%20Printable.pdf> (ciiipr.in)

⁶¹ World Intellectual Property Organization. (2025). *WIPO Pulse 2025: Findings*. <https://www.wipo.int/web-publications/wipo-pulse-2025/en/findings.html>

serious deterrent for women limiting their ability to protect, commercialize, and fully benefit from their creative and innovative contributions.

FINANCIAL CONSTRAINTS ASSOCIATED WITH FILING AND MAINTAINING IP REGISTRATIONS

The expenses involved in obtaining and maintaining intellectual property rights are complex and differ significantly based on the nature of the IP, the jurisdictions covered, and the strategic choices of the rights holder.⁶² Financial constraints often hold back women from filing and maintaining IP registrations. Many able but financially weak women give up their desire to obtain intellectual property rights because of the huge expenditure involved in the process of securing intellectual property rights.⁶³ Beyond the initial filing fees, additional costs such as attorney charges, prior art searches, responses to examination reports, translations, renewals, and enforcement expenditures can accumulate rapidly. Women entrepreneurs, start-ups, and independent inventors frequently operate with limited access to credit, investment networks, or collateral, making it difficult to sustain long-term IP strategies. The perception that protection is expensive and time-consuming may therefore discourage women from even initiating the process. Consequently, many innovations either remain unprotected or enter the market without adequate legal safeguards, reducing opportunities for commercialization and financial returns.

PROCEDURAL COMPLEXITIES

The process of securing intellectual property rights is complex and technical. It is difficult for women to understand this complicated procedure and navigate through the process of prolonged application filing⁶⁴, insufficient access to legal representation, and a lack of awareness and understanding of intellectual property laws and regulations⁶⁵. These procedural hurdles often create delays, increase dependency on intermediaries, and raise the overall cost of seeking protection. For many women, particularly first-time applicants or those operating in

⁶² FasterCapital. (2025, March 31). *IP cost and expense: IP expenses demystified – How to budget and plan for intellectual property*. FasterCapital. <https://fastercapital.com/content/IP-cost-and-expense--IP-Expenses-Demystified--How-to-Budget-and-Plan-for-Intellectual-Property.html>

⁶³ Shaariqah, S. (2025). *The intersection of intellectual property rights and women empowerment: Legal challenges and opportunities*. *International Journal of Law Management & Humanities*, 8(2), 1138–1155. <https://doi.org/10.1000/IJLMH.119160>

⁶⁴ Tiwari, L. B. (2025). *The role of intellectual property rights in empowering women entrepreneurs*. *International Journal of Advance and Applied Research*, 6(13), 1—. <https://doi.org/10.5281/zenodo.14912798>

⁶⁵ Johns, M. (2024). *Challenges faced by women in protecting intellectual property rights* (Vol. 7, Issue 1, pp. 704–711). *International Journal of Law Management & Humanities*. <https://ijlmh.com/wp-content/uploads/Challenges-Faced-by-Women-in-Protecting-Intellectual-Property-Rights.pdf>

small or informal enterprises, the technical language and documentation requirements can appear intimidating and exclusionary. The absence of simplified guidance, user-friendly interfaces, and readily available advisory support further discourages engagement with the system. As a result, promising innovations may remain unregistered, depriving women of both recognition and potential economic returns.

LIMITED INSTITUTIONAL SUPPORT

There is limited institutional support available to women in the form of dedicated IP facilitation centres, financial help ⁶⁶, affordable legal assistance, mentorship, guidance, networking opportunities⁶⁷ and capacity-building initiatives. The absence of gender-responsive institutional mechanisms and outreach efforts makes it difficult for women to access timely guidance, navigate complex IP procedures, and effectively protect and commercialise their intellectual property, thereby reinforcing existing gender disparities in the IP ecosystem ⁶⁸. This gap not only discourages many potential women innovators from seeking protection but also results in the under-representation of women in patent filings, technology transfer, and entrepreneurial ventures. Without sustained institutional backing, women are often compelled to rely on informal networks or abandon the registration process altogether.

PERSISTENT GENDER BIASES WITHIN INNOVATION ECOSYSTEMS

Gender bias discourages women from accessing IP Protections. There are ample instances where women have contributed significantly to an invention and have not been recognised for it, whereas all the recognition and monetary benefits have disproportionately accrued to men⁶⁹. Throughout history, there are ample instances of women like Elizabeth Magie who invented The Landlord's Game the board game that was the precursor to Monopoly, Vera Rubin the pioneering astronomer whose work provided evidence for dark matter, the contributions of Rosalind Franklin to DNA structure photography, Hedy Lamarr to the development of wireless communication, and Katherine Johnson to the calculations critical to the moon, did not receive

⁶⁶ Jishnu, L. (2024, November 22). *The patent truth about women inventors*. Down To Earth. <https://www.downtoearth.org.in/science-technology/the-patent-truth-about-women-inventors>

⁶⁷ Neves, J. (2024, May 30). *Networking in IP: The challenges and solutions for women*. Licks Attorneys. <https://www.lickslegal.com/articles/networking-in-ip-the-challenges-and-solutions-for-women>

⁶⁸ Anushka, A. (2025, March 7). *Women and intellectual property: Closing the gender gap in innovation and business*. Rouse. <https://rouse.com/insights/news/2025/women-and-intellectual-property-closing-the-gender-gap-in-innovation-and-business>

⁶⁹ Kalia, S. (2023, June 2). *What challenges do women face in protecting intellectual property rights?* The Hindu. <https://www.thehindu.com/sci-tech/technology/what-challenges-do-women-face-in-protecting-intellectual-property-rights/article66799666.ece> (accessed 3 February 2026).

the recognition they deserved.⁷⁰. Together, these examples highlight the persistent gender biases that have historically marginalised women's achievements and denied them due recognition. Despite notable progress in achieving gender equality, significant disparities continue to exist in patenting activities and in women's capacity to commercialize their creative and innovative work ⁷¹.

Women inventors worldwide constituted roughly 17.7% of the individuals listed in published Patent Cooperation Treaty (PCT) applications in 2023 ⁷², underscoring the continuing gender imbalance that characterises global innovation ecosystem. Addressing the barriers faced by women in accessing intellectual property protection is essential to creating an inclusive and equitable innovation ecosystem that recognises, protects, and rewards women's contributions.

SUGGESTIONS FOR STRENGTHENING WOMEN'S ACCESS TO INTELLECTUAL PROPERTY PROTECTION

There is a growing need to strengthen women's access to intellectual property protection to ensure equity, encourage innovation, and promote inclusive economic growth⁷³. Addressing structural, institutional, and socio-economic barriers requires targeted and gender-responsive interventions. Such interventions must move beyond formal equality and focus on creating practical pathways through which women can meaningfully engage with intellectual property systems. This involves expanding outreach efforts, improving affordability, strengthening mentorship networks, and embedding gender sensitivity within institutional practices. By adopting a holistic approach that integrates legal reform with capacity building and financial facilitation, policymakers can ensure that women innovators are not merely participants but equal stakeholders in the knowledge economy. A responsive and inclusive IP framework has the potential to unlock untapped talent, stimulate entrepreneurship, and contribute to broader goals of social justice and sustainable development.

⁷⁰ TOI Lifestyle Desk. (2024, August 22). *Groundbreaking inventions wrongly attributed to men: The overlooked contributions of women in history*. *Times of India*.
<https://timesofindia.indiatimes.com/etimes/trending/groundbreaking-inventions-wrongly-attributed-to-men-the-overlooked-contributions-of-women-in-history/articleshow/112681460.cms>

⁷¹ Innovation Council. (2024). *Closing innovation and intellectual property diversity gaps: Summary*. Innovation Council. <https://innovationcouncil.org/closing-the-gender-gap-in-intellectual-property-ip/> (innovationcouncil.org)

⁷² World Intellectual Property Organization. *Women and intellectual property*.
<https://www.wipo.int/en/web/women> (accessed February 12, 2026) (wipo.int)

⁷³ Stacey, B. H. (2024, June 21). *Closing the gender gap in intellectual property: Women and the Sustainable Development Goals connection*. FemmeForte Uganda. <https://www.femmeforteug.org/closing-the-gender-gap-in-intellectual-property-women-and-the-sustainable-development-goals-connection> (accessed February 12, 2026)

GENDER-RESPONSIVE INTELLECTUAL PROPERTY POLICIES

Introducing gender-responsive intellectual property policies is essential to bridge gender gaps in innovation and transform IP regimes into effective tools for women's economic empowerment. In India, the government has taken some praiseworthy steps towards making gender responsive policies which will enable women innovators and entrepreneurs to overcome structural barriers and benefit from intellectual property rights. Capacity-building initiatives such as the Women Scientist Scheme⁷⁴, CURIE⁷⁵, Vigyan Jyoti, GATI, and other programmes implemented under the WISE (Women in Science and Engineering)⁷⁶ framework have played a significant role in promoting and strengthening women's participation in scientific research and innovation. Intellectual Property Rights (IPR) form a critical underlying component of these initiatives, as they are intrinsically linked to the innovation process. A key objective of these schemes is to foster an enabling and inclusive environment that ensures equal opportunities for women in Science, Technology, Engineering, Medicine, and Mathematics (STEMM)⁷⁷. If these programs and initiatives are effectively implemented, they can break down barriers to gender bias and ensure greater inclusion of women in innovation and intellectual property regimes.

ENHANCED AWARENESS AND CAPACITY-BUILDING PROGRAMS

Enhanced awareness and capacity-building programmes, for women, can enable their access to IP protection. There is a strong need for tailored educational initiatives to raise the level of awareness and understanding among women regarding IP. Designing and implementing targeted educational initiatives focused on industrial designs, trademarks, layout designs, and trade secrets to address the awareness gap between male and female students in these domains can be highly useful. Such initiatives may include specialised workshops, seminars, and hands-on training modules aimed at enhancing understanding, practical knowledge, and appreciation of specific intellectual property rights concepts⁷⁸. Further capacity-building programmes for

⁷⁴ India Science, Technology & Innovation. *Women Scientist Scheme (WOS)*. Ministry of Science & Technology, Government of India. <https://www.indiascienceandtechnology.gov.in/nurturing-minds/scholarships/women/women-scientist-scheme-wos?language=en>

⁷⁵ Department of Science & Technology. (2020, March 5). *CURIE initiative of DST enhancing research facilities in women universities*. Government of India. <https://dst.gov.in/pressrelease/curie-initiative-dst-enhancing-research-facilities-women-universities> (accessed February 9, 2026)

⁷⁶ Department of Science & Technology. *Women in Science and Engineering-KIRAN (WISE-KIRAN)*. Government of India. <https://dst.gov.in/scientific-programmes/wise-kiran> (accessed February 9, 2026)

⁷⁷ Office of the Controller General of Patents, Designs & Trade Marks & Registrar of Geographical Indications. (2023). *India's initiatives: Enhancing women's participation in innovation & IPR (Women in IP)*. Intellectual Property India. https://ipindia.gov.in/writereaddata/Portal/Images/pdf/Publication_Women_in_IP.pdf

⁷⁸ Devasena, S. V. (2024). *Bridging the gap: A comparative analysis of intellectual property rights awareness and institutional initiatives among male and female engineering college students* (Major Research Project,

proper mentorship⁷⁹, guidance, training and networking opportunities can help women to have easy access to IP processes.

SIMPLIFIED AND ACCESSIBLE IP REGISTRATION PROCEDURES

The simplification of IP registration procedures and improving their accessibility for women can help make the intellectual property system more inclusive and equitable. Streamlined processes, reduced costs, user-friendly digital platforms, and targeted guidance mechanisms would enable women innovators, entrepreneurs, and researchers to navigate the system with greater confidence. Such measures can reduce procedural barriers, address informational asymmetries, and enhance women's ability to secure, manage, and commercialize their creations. In the long run, accessible IP frameworks can promote gender-balanced participation in innovation ecosystems and strengthen women's economic agency.

TARGETED INSTITUTIONAL SUPPORT FOR EQUITABLE IP PROTECTION

The limited institutional support for women often leaves them struggling through the complex system with little success. Dedicated mentoring networks, accessible legal assistance, financial facilitation, and specialised advisory services should be established to guide women innovators at every stage of the registration process. Outreach initiatives and gender-sensitive helpdesks can further improve awareness, reduce procedural hesitation, and encourage greater participation. Such support is essential for dismantling structural barriers and ensuring equitable representation of women within the intellectual property ecosystem.⁸⁰

LEGAL AID FOR WOMEN FACING CHALLENGES

Women who encounter legal or procedural difficulties in securing intellectual property protection should be able to access timely and effective legal assistance. In India, an institutional framework already exists in the form of Legal Services Authorities⁸¹ at the national, state, district, and taluk levels, which are mandated to provide free legal aid to eligible

funded by TANSCHÉ). *Educational Administration: Theory and Practice*, 30(1), 1264–1268.
<https://doi.org/10.53555/kuey.v30i1.6129>

⁷⁹ World Intellectual Property Organization. (2026, January 20). *Mentoring for success – Building a future of women innovation leaders*. WIPO. <https://www.wipo.int/en/web/women/w/news/2026/mentoring-for-success-building-a-future-of-women-innovation-leaders>

⁸⁰ Jaychander, N. (2025, April 23). *Intellectual Property Day: Women's rights and challenges*. Her Circle. <https://www.hercircle.in/engage/career/career/intellectual-property-day-womens-rights-and-challenges-9100.html>

⁸¹ National Legal Services Authority. *The Legal Services Authorities Act, 1987*. Government of India. <https://nalsa.gov.in/the-legal-services-authorities-act-1987/> (accessed February 10, 2026)

women⁸². Strengthening coordination between IP offices and these authorities, creating specialised IP support cells, and improving awareness about the availability of such services can significantly enhance women's ability to claim and enforce their rights⁸³. Accessible legal aid can reduce financial burdens, build confidence, and ensure that women are not excluded from the innovation ecosystem due to a lack of resources or representation.

CONCLUSION

The study examines the position of women within the intellectual property framework and aims to understand the barriers that shape their access to protection and participation. The analysis points out that despite gradual policy recognition and the presence of supportive schemes, structural, procedural, and institutional constraints continue to limit women's effective engagement with the IP system. Addressing these gaps requires sustained commitment toward gender-responsive reforms, simplified processes, improved awareness, and stronger support mechanisms. The significance of advancing women's participation in intellectual property is also reflected at the global level. World Intellectual Property Day observed on 26 April, 2023⁸⁴, was dedicated to recognising the contributions of women innovators and creators, underscoring the urgent need to build inclusive IP ecosystems worldwide. Ensuring the valuable inclusion of women is not only a matter of fairness but also essential for fostering innovation, creativity, and equitable economic development. The future can be bright and positive for the nation as a whole if women are provided adequate support, assistance and reinforcement to reach greater heights of success and to contribute meaningfully to national progress in IP fields. When women are empowered to protect and commercialise their creations, the benefits extend beyond individual achievement to broader economic growth, social development, and global competitiveness.



⁸² Under Section 12 of the Legal Services Authorities Act, 1987 (Government of India, 1987), women are entitled to receive free legal services irrespective of income.

⁸³ More, H. (2024, September 16). *Entitlement to legal services under the Legal Services Authorities Act, 1987*. The Legal Quotient. <https://thelegalquotient.com/alternate-dispute-resolution/legal-services-authorities-act/entitlement-to-legal-services-under-the-legal-services-authorities-act-1987/4884/>

⁸⁴ Feriti, I. (2023, April 26). *2023 World Intellectual Property Day: Women Year*. Brevettinews. <https://brevettinews.it/en/notes/2023-world-intellectual-property-day-women-year/> (brevettinews.it)