
ENCOURAGING WOMEN IN INTELLECTUAL PROPERTY: IDENTIFYING, DISMANTLING OBSTACLES FOR PROMOTING CREATIVITY AND INNOVATION

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This study examines how women and intellectual property (IP) interact dynamically to spur innovation across a range of industries. Acknowledging the historical underrepresentation of women in IP-related fields, the research explores how women are contributing to innovation, technology, the arts, and sciences.

The study examines how women have shaped the intellectual property landscape and how this has affected the development of a more varied and inclusive creative ecosystem through the use of an interdisciplinary perspective. It examines the difficulties women encounter in obtaining and safeguarding their intellectual property, emphasizing the differences that continue to exist in the areas of copyright, patent ownership, and trademark registration.

Additionally, it examines the broader societal implications of bridging the gender gap in intellectual property, emphasizing the potential for enhanced innovation, economic growth, and social progress.

By addressing the gender-specific barriers and biases within the IP framework, the paper advocates for policy reforms and institutional changes aimed at creating a more equitable environment. It concludes with a call to action, encouraging stakeholders to actively support and promote the involvement of women in intellectual property, ultimately fostering an atmosphere where creativity flourishes unhindered by gender-based constraints. Policymakers, academics, and practitioners who want to comprehend and take advantage of the relationship between women and intellectual property to advance innovation will find this investigation to be a useful resource.

Keywords: Women in Intellectual Property, Gender Disparities, Creative Ecosystem, Policy Reforms, Innovation and Technology, Intellectual Property.

INTRODUCTION

The relationship between women and intellectual property (IP) is a fascinating and little-studied aspect of the dynamic field of innovation. This study explores the complex relationship between women and intellectual property, highlighting the dynamic contributions made by women in a variety of fields, such as the arts, sciences, and technology. Understanding the historical gaps in women's representation in IP-related sectors, our research aims to elucidate the various ways in which women have influenced the field of intellectual property.

As we begin this investigation, the study recognizes and examines the difficulties women face in acquiring and protecting their intellectual property. It applies a critical perspective to the current discrepancies in copyright, patent ownership, and trademark registration, bringing attention to the enduring disparities that affect women's participation in these vital fields.

Additionally, our research takes an interdisciplinary approach, providing a comprehensive view of how women's participation in intellectual property has promoted a more inclusive and diverse creative ecosystem. The transformative impact of women in intellectual property-intensive sectors is highlighted through the presentation of their innovative tactics, empowering initiatives, and success stories.

The study looks at the wider societal ramifications of closing the gender gap in intellectual property, going beyond individual accomplishments. The potential for increased invention, economic expansion, and social advancement is highlighted, and we examine the cascading implications of creating an atmosphere in which women flourish in the context of intellectual property.

This article calls for concrete action to advance gender parity within the intellectual property framework, going beyond mere observation. We argue that in order to create an equal environment where women can fully engage in intellectual property procedures, institutional adjustments and regulatory reforms are necessary. By doing this, we hope to break down prejudices and restrictions that are specific to gender, opening the door for a time when creativity can thrive without social restraints.

The inquiry ends with a strong call to action, imploring all relevant parties—policymakers, scholars, and practitioners—to aggressively support women's participation in intellectual property. We hope to bring about a paradigm change where gender-based boundaries no longer exist for innovation by creating an environment that supports and nurtures women.

For individuals looking to understand and capitalize on the complex relationship between women and intellectual property to advance innovation, this report is a great resource. Our goal is to unleash the full creative potential across a range of businesses by encouraging a collaborative effort towards a more equitable and inclusive intellectual property landscape through our exploration.

Disparity by Gender: Data and Trends

The World Intellectual Property Organization (WIPO), in its recent analysis, finds that less than a third of all international patent applications filed in 2019 included women inventors. As per the international patent regime's tenets, patent applications serve as a crucial indicator of inventive activity within the global economy. The low representation of women in the innovation ecosystem raises serious concerns because it suggests that a vast array of talents and untapped potential are not being made available to humanity to address urgent social issues like food security, climate change, and sustainable energy production and consumption, as well as to boost competitiveness.

Men predominate in the majority of IP-related fields. Merely 7% of film directors worldwide are women, and only 20% of screenwriters are women, according to a United Nations assessment on women's involvement in the entertainment industry. This demonstrates in a significant way how underrepresented women are in the copyright system. Men predominate in the creative and artistic fields as well.

Similarly, research on the worldwide art market has shown that women's art sells for less at auction or at a disproportionately low price compared to men's. Although there is little information now available about the global IP situation, examining the IP regimes nation by nation from a gender viewpoint may result in unfavorable outcomes.

Research on the US Patent System:

A study into the United States patenting regime provides us insights regarding the widespread gender gap. The National Centre for Women & Information Technology, in partnership with After analyzing data from the USPTO for the years 1980–2010, 1790 Analytics released a report on women who patent IT. According to this analysis, during the course of the 31-year period, female inventors produced just 6.1% of U.S.-invented IT patents, while male inventors produced 93.9% of them. According to a different estimate, there are only about 15% of women employed in industrial design in the United States. Similarly, male authors register twice as many copyrights as female authors do in copyright filings.

Causes

There are countless underlying reasons why women are underrepresented in IP. Gender discrimination is pervasive in many different fields. By concentrating on the underdeveloped areas of developing countries, or the opposite side of the globe, a more strategic assessment of the causes of inequality can be achieved. There is still a segment of the world that struggles and endures great poverty, joblessness, starvation, and horrible living circumstances. Additionally, the gender issue is negatively reflected in these sectors. In its 2019 Least Developed Countries (LDC) Report, the United Nations Conference on Trade and Development (UNCTAD) identified 47 nations as LDCs. Most of these nations are in Africa; a small number are in Asia and the Pacific; very few are in Latin America; and some are in the Middle East. Furthermore, the majority of these nations are ranked extremely low or at the bottom of the UNDP's Gender Inequality Index (GII). Three crucial dimensions—empowerment, labor market engagement, and reproductive health—are used by this index to quantify gender difference. Now, this greatly enhances our goal of identifying the reasons for underrepresentation in IP, which may be emphasized by highlighting the following crucial elements:

1. Disparities in education between genders:

There are gender differences in schooling on a very wide scale; 132 million girls are not enrolled in school globally today. Girls who live in conflict or war-affected nations are more than twice as likely as those who live in non-affected countries to not attend school or receive any kind of education. Only 25 percent of countries have achieved gender equity in upper secondary education. Currently, females' lack of secondary education has an impact on their participation in women in the core academic fields of engineering, science, medicine,

politics, economics, and technology. Women are notably behind in the innovation and creativity-driven intellectual property market as a result of this.

2. Laws with a gender bias :

Numerous nations continue to support laws that discriminate against women based on their gender. The status of women is severely undermined by laws that are discriminatory against them in any nation. Individual dignity is undermined by legalities and illegalities, but societal traditions can be contested and overturned. It often silences the voices, abilities, and ambitions of a great number of women. And as a result, women's involvement in invention, creativity, and development declines.

Just eight nations worldwide grant equal rights to men and women, according to the World Bank's Women, Business, and the Law 2020 study. Belgium, Canada, Denmark, France, Iceland, Latvia, Luxembourg, and Sweden are some of these nations. The study assessed discrimination based on gender in 182 nations. Eight parameters that measured the legal distinctions between men and women in various fields as they move through different periods of their working lives were evaluated by the index.

3. Prejudices and Stereotypes against Women:

Stereotypes pertaining to gender are prevalent in our communities. It is a broad opinion or preconception about characteristics or traits, or about the roles that men and women should or should not play or possess. Since ancient times, women have been subject to a variety of stereotypes, prejudices, and dogmas. When a gender stereotype prevents men and women from pursuing their professional goals, growing personally, or making life decisions, it is dangerous.

The enormous potential for creativity among women has consistently been underutilized due to preconceived notions about women and their roles. When it comes to their independence and aspirations, women have historically been devalued and condemned. These myths endure despite the fact that women have proven their abilities and cemented their places in every field of science, technology, innovation, business, and the arts over time.

4. Obstacles within the IP system:

There are several reasons why potential consumers don't utilize the IP system. The factors of women's inequality mentioned above are universal in nature. Dealing only with the IP regime has its own contributing elements and causes.

One predominant factor that needs to be addressed is the high cost of patent and trademark protection in most parts of the world, which makes it unaffordable for small and medium-sized businesses. Another major issue that needs to be addressed is the system's excessive complexity; there are no support systems in place to handle user complaints and issues; the services primarily target large corporations, leaving other entities out.

In a similar vein, one deciding factor that significantly reduces the number of participants is IP education. Due to ignorance and lack of information, the majority of women-owned businesses fail to seek finance and IP protection even while they are growing. Based on available data and extensive research, it is determined that women-owned enterprises exist in many distant regions of the world. Despite their great potential, these businesses often struggle due to a lack of key resources.

Bridging the Gap

According to World Bank projections, the overall predicted lifetime earnings gap between men and women is estimated to be \$172.3 trillion globally, which is twice the global gross domestic product (GDP). A report from the Institute for Women's Policy Research predicts that it will take until 2092 for women to achieve gender parity in the US patent system. Many female inventors lack basic understanding of the patenting process since they have not been educated about or exposed to invention and patenting.

This is the data that we can gather from industrialized nations like the US, but as we have seen in the past, underdeveloped nations continue to lag behind in the majority of important domains. Data on IP filings in other regions of the world and on other IP-related topics, such as copyrights, are lacking.

To recover the fundamental elements of gender inequality and the gaps that still exist, an excessive amount of work needs to be done in this area. A deeper examination and analysis can aid in the development of initiatives to research the IP regime globally, as there is a dearth of data about gender-based IP. With current research, data and reports Effective strategies can be used to close the gender gap. This calls for significant changes to allow women to participate in determining the direction of society.

Among the 17 Sustainable Development Goals of the United Nations is achieving gender equality and the empowerment of all women and girls.

Strengthening Women into IP:

"Powering Change: Women in Creativity and Innovation" was the theme of the 2018 World Intellectual Property Day celebration.

Women and girls must have their fundamental needs in family, community, health, and education fulfilled if they are to reach their full potential. Effective strategies to up skill women and accelerate their advancement must begin at the beginning. More women's engagement can be achieved by effective policymaking and the significant addition of resources to the capital of women and girls. Expanding incentive-based initiatives aimed at empowering women is one way to address this issue. Concisely written, workable recommendations to reduce gender imbalance and empower women in the intellectual property field are included below.

Learning for Females:

The foundation of success for any person is education. It is a necessary first step in achieving gender equity. A strong educational foundation is essential for the achievement of any future vision, ambition, or goal. Given a few of the above mentioned issues, it is obvious why girls face discrimination and underrepresentation in the classroom. In order to achieve gender parity in education, legislators and other relevant parties must tackle several obstacles that stand in the way of the aim. Among the strategies for improving girls' access to education are the following:

- Free education for all and simple access to school
- Incentives to meritorious students through scholarships, assistance etc.
- Ensuring quality education, with educated teachers
- Prevention against abuse, prejudice and violence.

Various governmental schemes, efforts of International Organizations, NGO's and other bodies are trying to realize the goal and right of basic education for girls. Examples to this include projects of UNICEF an organ of United Nations which works across 190 countries to provide education to underprivileged girls to support their rights and basic educational requirements. Similarly, in the Indian context the government in India has also taken up initiatives such as the "Beti Padhao Beti Bachao" to provide education to girls from poor backgrounds and those in extreme poverty. Effective implementation and enforcement of such programs are inevitable towards achieving gender parity in education.

Investing In Women's and Girls' Human Capital

Investing in the human capital of women and girls can now make a substantial economic contribution. In terms of economic growth, investments made in their education, health, and empowerment through employment opportunities can yield significant returns.

Therefore, putting women's needs and requirements first through institutional, legal, and cultural reforms can be a big step towards women's empowerment. Governments ought to support gender parity in the administrative workforce. When combined with a gender-sensitive lens—basically the one magnifying—tools and mechanisms like structural policies, norms, budgets, regulatory frameworks, facilitation, and procurement processes can have a strong potential to boost women's economic empowerment, including full participation in the labor and commodities market, mitigating occupational discrimination, and supporting female entrepreneurship and access to finance.

Even though the scope and speed of these programs and activities are currently too slow to have a permanent effect, governments are increasingly employing their resources and decision-making apparatus to promote gender equality goals.

Indian states have taken the initiative to provide start-up policies exclusively for women in order to effectively engage women-owned business enterprises. For example, Andaman and Nicobar offers monthly allowances of 20,000 INR to women-owned start-ups for a period of one year. These are examples of incentivization in the trade and commerce for women. Similarly, in Bihar, women-owned start-ups receive a five percent additional grant above the Start-up India initiative's specified limit for a one-year term. These incentives play a major role in encouraging more women entrepreneurs to engage in business and the intellectual property system.

Motivating Women into IP

The IPR expertise in business, academia, law, IP users, and civil society needs to be expanded in order to fully realize the potential of women in IP. Promoting and assisting women who are creators, innovators, entrepreneurs, practitioners, teachers, and trainers in developing their capabilities. It is imperative to improve multidisciplinary human and institutional capacity for research, teaching, training, policy formation, and skill creation. The level of quality and experience will make it easier to generate more intellectual property and use it for development. The five strategies listed below can help young female professionals' IP regime grow and be strengthened:

- Training
- Research
- Curriculum-based IP education
- Support systems

Certain reforms should be implemented in order to include small and medium-sized women-owned businesses in the IP system. Users should be able to readily access the system, and the website should be designed with ease of use in mind. It is imperative to streamline the filing process by reducing complexity and offering adequate notifications, guidance, and support. Putting in place helpline-based support services to handle complaints and inquiries from users. These could be one of the few useful system changes that successfully introduce and motivate more female entrepreneurs to join the IP regime.

Examining Women's Potential

There is no basis for the pervasive prejudice that undermines women's innovative credibility. Despite obstacles, women have demonstrated their talents by making inspirational contributions all throughout the world. Nevertheless, rather than support, they frequently encounter contempt and apathy. The problem is made worse by historical credit misattributions of women's accomplishments to men. Women greatly contribute to creativity, and their growing participation is not only justified but also raises standards. Studies on the arts indicate that women are more creative than men. Gender discrepancies are not caused by talent, but by social disadvantages. Bias and cultural context hinder the advancement of female artists, who perform best in collaborative environments. Recognizing the potential of women is essential to removing these obstacles.

CONCLUSION

Ultimately, this research explores the complex link between women and intellectual property (IP), illuminating the historical underrepresentation of women in IP-related disciplines and highlighting the dynamic ways in which they contribute to innovation in a range of industries. This study highlights the difficulties that women encounter while obtaining and defending their intellectual property rights, analyzing differences in copyright, patent ownership, and trademark registration critically.

The study, which takes an interdisciplinary approach, demonstrates how women's involvement in intellectual property has influenced the development of a more varied and inclusive creative environment. The transformative effect of women's involvement in IP-intensive sectors is highlighted by the success stories, creative strategies, and empowering projects that these women have undertaken in technology, the arts, and the sciences.

The study looks at the larger societal ramifications of closing the gender gap in intellectual property, going beyond individual achievements. The study emphasizes how creating an atmosphere where women may succeed in the field of intellectual property can lead to increased creativity, economic growth, and social improvement.

Acknowledging the gender gaps in international patent filings, film directing, and the worldwide art market that currently exist, the research pinpoints the underlying reasons for the underrepresentation. These factors include gender-biased laws and educational gaps, as well as ingrained assumptions, prejudices, and barriers within the IP system itself.

The report proposes specific institutional and policy reforms to create a more egalitarian environment in order to solve these issues. The paper envisions a future in which women can fully participate in intellectual property proceedings without encountering social restraints by tearing down gender-specific hurdles and biases inside the IP system.

The study is in line with the Sustainable Development Goals of the United Nations, including the objective of attaining gender equality and empowering all women and girls, and acknowledges the economic potential of eliminating the gender gap. It ends with a strong call to action, imploring academics, practitioners, politicians, and other pertinent parties to actively encourage and support women's participation in intellectual property.

In the conclusion, this study is a useful tool for practitioners, scholars, and legislators who want to understand and use the connection between women and intellectual property to promote innovation. The objective is to support a paradigm change in which gender-based limitations no longer limit innovation, creating an environment in which women's full creative potential can thrive across a range of industries.

REFERENCES

1. Gender equality and IP, WIPO, https://www.wipo.int/women-and-ip/en/news/2020/news_0001.html.
2. Power and decision making, UN stats, <https://unstats.un.org/unsd/gender/chapter5/chapter5.html>.
3. Ashcraft Catherine & Breitzman Anthony, Who Invents IT? Women's Participation in Information Technology Patenting, 2012 Update 3-4, (National Centre for Women & Information Technology) 2012.
4. 6 Alissa Walker, Women in Industrial Design: Where my Ladies at, Good (Nov 8, 2010) <https://www.good.is/articles/women-in-industrial-design-where-my-ladies-at>.
5. 7 Brauneis, Robert and Oliar, Dotan, Copyright's Race, Gender and Age: A First Quantitative Look at Registrations, *The George Washington Law Review* Vol. 86 No. 1, 101, 128-33 (2018).
6. 8 Girls Education, UNICEF, <https://www.unicef.org/education/girls-education>.
7. World Bank. 2020. Women, Business and the Law 2020. Women, Business and the Law. Washington, DC: World Bank. doi:10.1596/978-1-4648-1532-4, Women, Business and the Law 2020 (worldbank.org).
8. 10 Gender Stereotype, UNHRC, <https://www.ohchr.org/en/issues/women/wrgs/pages/genderstereotypes.aspx>.
9. World Bank. 2022. Women, Business and the Law 2022. Washington, DC: World Bank. doi:10.1596/978-1-4648-1817-2. License: Creative Commons Attribution CC BY 3.0 IGO, Reports, Key Findings - Women, Business and the Law - World Bank Group.
10. Elsy Shaw, MA and Haile Mariano, Tackling the Gender and Racial Patenting Gap to drive Innovation, Institute for Women's Policy Research, (July 2021), [Tackling-the-Gender-and-Racial-Patenting-Gap_FINAL38.pdf](#) (iwpr.org).
11. Achieving Gender Equality and Empower all Women and Girls, Department of Economic and Social Affairs Sustainable Development, United Nations, <https://sdgs.un.org/goals/goal5>.
12. World Intellectual Property Day 2018 – "Powering change: Women in innovation and creativity", WIPO, (Apr 26, 2018), https://www.wipo.int/ip-outreach/en/ipday/2018/dg_message.html.
13. 15 No Ceilings: The Full Participation Report, Clinton Foundation, Bill and Melinda Gates Foundation, 2015 <http://www.noceilings.org/report/report.pdf>.
14. Greg Satel, Why We Need Women To Have Larger Role In Innovation, Inc., (Nov 17, 2018), <https://www.inc.com/greg-satell/why-we-need-women-to-have-a-larger-role-in-innovation.html>.