

UNLOCKING INNOVATION: EMBRACING THE POSITIVE IMPACT OF IPR EXPIRATION IN INDIA [WITH SPECIAL REFERENCE TO THE PHARMACEUTICAL INDUSTRY]

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ABSTRACT

Intellectual Property Rights (IPR) expiration in the Indian context holds the promise of fostering innovation, accessibility, and affordability within the pharmaceutical and technology sectors. This research article provides an overview of the positive impact resulting from the expiration of IPR in India, emphasizing the dynamic transformations that unfold in the realms of healthcare, technology, and economic development.

In the pharmaceutical sector, the expiration of patents enables the emergence of generic alternatives, leading to increased competition and a subsequent reduction in the cost of essential medications. This positively influences healthcare accessibility, particularly for economically disadvantaged populations, and encourages domestic pharmaceutical companies to innovate and diversify their product offerings.

The role of regulatory frameworks in facilitating this positive transformation is also discussed, emphasizing the need for a balanced approach that safeguards intellectual property rights while encouraging fair competition and widespread innovation.

As India positions itself as a hub for innovation and technology, the positive impacts of IPR expiration are expected to reverberate globally, influencing policy discussions and encouraging a more inclusive approach to intellectual property rights.

This research article uses the way of primary data collection method through circulating a questionnaire among the people of Bhopal.

In conclusion, this research article advocates for a perspective shift towards recognizing IPR expiration as a driver of positive change in India. By unlocking innovation, fostering competition, and enhancing accessibility, India's approach to IPR expiration stands as a model for other nations seeking to strike a balance between protecting intellectual property and promoting socio-economic development.

Keywords- *generic drugs, fair competition, developing country, branded drugs.*

INTRODUCTION

Intellectual Property Rights (IPR) refer to legal rights that are granted to individuals or entities for the protection of their intellectual creations or innovations. These rights provide exclusive control over the use, distribution, and reproduction of intellectual property, encouraging individuals and organizations to invest in and share their ideas without fear of unauthorized use or duplication. Intellectual property can take various forms, and the most common types of IPR include:

1. **Patents:** Granted for inventions or discoveries, giving the inventor exclusive rights to use, make, sell, and distribute the patented invention for a specified period.
2. **Copyrights:** Protect original works of authorship, such as literary, artistic, and musical creations, giving the creator the exclusive right to reproduce, distribute, and display their work.
3. **Trademarks:** Protect symbols, names, and slogans used to identify goods or services, preventing others from using similar marks that may cause confusion among consumers.
4. **Trade Secrets:** Cover confidential business information, providing a competitive advantage, and typically involve formulas, processes, or business methods.
5. **Industrial Designs:** Protect the visual design of objects that are not purely utilitarian, such as the shape or ornamentation of a product.
6. **Geographical Indications:** Protect indications that identify a product as originating from a specific place, where a particular quality, reputation, or characteristic of the product is essentially attributable to its geographical origin.

These intellectual property rights aim to strike a balance between promoting innovation and creativity and providing creators with the incentives and protections necessary to invest time, effort, and resources into developing new ideas and products. The legal frameworks governing IPR vary across jurisdictions, and adherence to these rights is crucial for fostering innovation, economic development, and fair competition.

IPR expiration refers to the termination or conclusion of the legal protection granted by Intellectual Property Rights (IPR) for a particular intellectual creation or innovation. Intellectual Property Rights, such as patents, copyrights, trademarks, and others, are time-limited, meaning they are valid for a specified duration. Once this period expires, the intellectual property enters the public domain, becoming freely accessible and usable by the general public.

The concept of IPR expiration is particularly relevant in the context of patents. For example, a patent is typically granted for a set period, often 20 years from the filing date. After the expiration of this term, the once-protected invention becomes part of the public domain, allowing others to use, make, and sell the patented technology without infringing on the expired patent.

The expiration of IPR can have significant implications for various stakeholders. On the positive side, it can foster competition, encourage innovation, and lead to the development of generic alternatives, particularly in industries like pharmaceuticals. However, it also challenges the original rights holder to adapt, innovate further, or diversify their offerings to maintain a competitive edge in the market. In addition to patents, other forms of intellectual

property, such as copyrights and trademarks, also have expiration periods. The specifics vary depending on the type of intellectual property and the legal jurisdiction in which it is granted.

The expiration of Intellectual Property Rights (IPR), particularly in the medical industry, can have several positive impacts on developing countries. Here are some key aspects to consider:

1. **Increased Access to Affordable Medicines:** IPR expiration allows for the entry of generic versions of patented drugs into the market. This increased competition often leads to a significant reduction in the prices of essential medications. As a result, people in developing countries gain improved access to life-saving treatments and medicines, addressing public health challenges more effectively.
2. **Encouragement of Local Pharmaceutical Industries:** IPR expiration creates opportunities for local pharmaceutical companies in developing countries to produce generic versions of patented drugs. This not only boosts the domestic pharmaceutical industry but also encourages innovation as these companies may invest in research and development to formulate alternative, cost-effective medicines.
3. **Technology Transfer and Knowledge Sharing:** When patents expire, the knowledge and technology embodied in those patents become part of the public domain. This facilitates technology transfer and knowledge sharing, enabling developing countries to access and utilize previously protected innovations. This can contribute to the advancement of local research and development capabilities.

4. **Reduction of Healthcare Costs:** With the introduction of generic alternatives, the overall cost of healthcare can decrease. Governments and healthcare providers in developing countries can allocate resources more efficiently, ensuring that a larger portion of the population can afford necessary medical treatments and preventive measures.
5. **Public Health Improvement:** The availability of affordable medicines contributes to better public health outcomes. Access to essential treatments can lead to the prevention and management of diseases, reducing the overall burden of illness in the population. Improved health outcomes, in turn, positively impact productivity and socio-economic development.
6. **Stimulation of Innovation:** IPR expiration can stimulate innovation by creating a competitive environment. Once patents expire, companies may invest in developing new formulations, delivery methods, or combinations of drugs to maintain a competitive edge. This ongoing innovation benefits not only the local industry but also contributes to the global pool of medical knowledge.
7. **Global Health Equity:** IPR expiration in the medical industry can promote global health equity by reducing disparities in access to essential medicines. It enables developing countries to bridge the gap between their healthcare capabilities and those of more developed nations, fostering a more equitable distribution of medical resources.

REVIEW OF LITERATURE

[1] Cassandra Mehlig Sweet and Dalibor Sacha Eterovic Maggio

[22 Oct'2014], Santiago, Chile

Globally, stronger intellectual property (IP) laws are found to have a positive impact on a country's innovation levels, especially in terms of export sophistication. The study suggests that the significance of intellectual property rights (IPR) in fostering innovation is more evident in nations with a certain degree of economic complexity. It also talks about the need to customize national intellectual property systems to meet the specific requirements of development, challenging existing literature on IP by acknowledging its diverse impact across countries at varying stages of economic development.

[2] Mhlambululi Mafu [17 March 2023], Department of Physics, Case Western Reserve University, Cleveland, OH, United States

The study explores the benefits that higher educational institutions can derive from expired patents. The author highlights that although patents in the public domain may not be universally valuable, they can significantly impact subsequent technologies. The influence of patents varies across sectors, with the electronics industry, Internet of Things, and Artificial Intelligence fields offering more opportunities compared to sectors with longer patent lifespans like the pharmaceutical industry. The study suggests that delving into expired patents is a gateway to untapped knowledge and a pathway to shaping the future of technology and industry.

[3] Margaret Kyle & Yi Qian [December 2014]

In summary, the study's findings emphasize the nuanced relationship between Intellectual Property Rights (IPRs) and access to pharmaceutical innovations. The research suggests that the presence

of IPRs alone does not decisively determine the introduction of pharmaceutical innovations at the country level. On a positive note, the results indicate that IPRs, by boosting incentives for marketing efforts by originators, may play a role in enhancing the availability of new treatments in developing countries.

RESEARCH METHODOLOGY

Scope

1. Geographic scope: This study focuses on the point of view of the people residing in Bhopal and nearby areas
2. Demographic Scope: This study covers a diverse range of respondents like students, employees and many others.
3. Methodology: This study is inclusive of both qualitative and quantitative data.

Sources of Data

The study's scope was restricted only to people in Bhopal and surrounding areas. Here, we have circulated a questionnaire to a group of people who were in contact. The questionnaire was circulated to 175 people (approx.), out of which 122 people responded and one out of all was not considered due to an invalid response. Students, employees, entrepreneurs, artists and retired professionals are among these respondents.

Limitation

1. Limited sample size: the sample size of the study is limited and may not represent the entire population of Bhopal. This could limit the generalizability of findings.

2. Response bias: The respondents may provide inaccurate responses because of reasons like boredom, lack of interest etc.
3. Data collection method: The method used for data collection in the study may influence the result. For example, the use of online surveys may limit the participation to those with internet access whereas in-person surveys may be impacted by factors like interviewer bias.
4. Time constraints: Tight deadlines may impact the quality of research and the accuracy of results.

OBJECTIVES

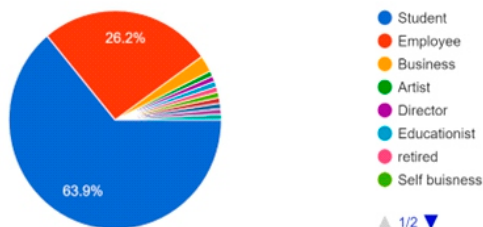
Objectives for researching the positive impact of IPR expiration in the pharmaceutical Industry from the point of view of people in Bhopal: -

1. If the people believe in the positive impact of IPR expiration
2. If the people believe that IPR expiration would bring innovation to a developing country like India.

DATA REPRESENTATION AND ANALYSIS

Figure 01- Bi-furcation of occupation among the respondents.

Occupation
122 responses



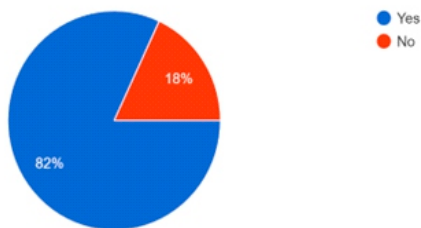
From the pie chart, it is assessed that the majority of respondents belong to the student category followed by employees and others [63.9% students, 26.2% employees, and the rest 9.9% belong to categories like Business, artist, Director, Educationist, Retired].

From a common perspective, this happened because the questionnaire was circulated more among students as compared to others.

Figure 02- Bi-furcation of awareness of IPR among the respondents.

Do you know about IPR?

122 responses

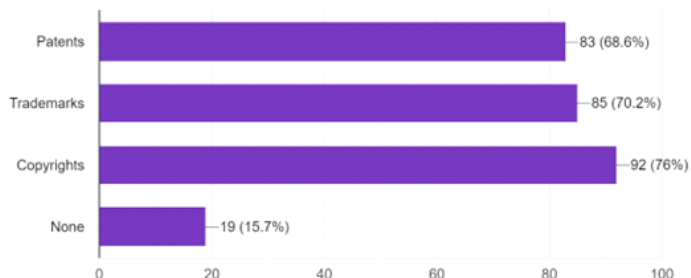


When asked about the basic knowledge of IPR the responses are more inclined towards “YES” i.e. 82%.

This shows that the majority of people are already aware of IPR basics.

Figure 03- Bi-furcation of awareness regarding types of IPR among the respondents

How many types of IPR are you aware of?
121 responses

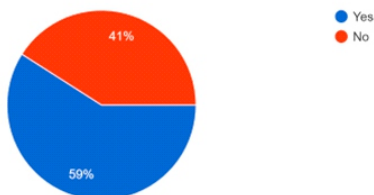


IPR can take various forms like Patents, Trademarks, Copyright, Trade Secretes etc. People tend to know the most about copyrights followed by trademarks, and patents. On the other hand, some respondents voted for none [the percentages cannot be bifurcated because there are respondents who chose more than one option].

From our point of view, this might have happened because of the common use of the term copyright and related terms.

Figure 04- Bi-furcation of awareness about IPR expiration among the respondents

Do you know about IPR expiration?
122 responses

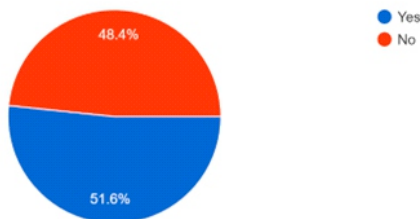


From the above pie chart, it is inferred that the majority of the respondents have knowledge of IPR expiration [59% of people know about IPR expiration while 41% people don't know about IPR expiration].

This is probably due to the lack of awareness about IPR expiration among the common people.

Figure 05- Bi-furcation of awareness about the benefits of IPR expiration

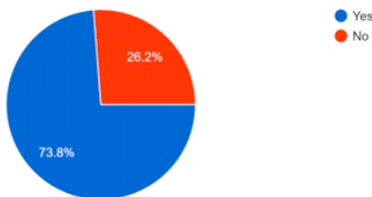
Are you aware with the benefits of IPR expiration?
122 responses



It is observed from the above that there is a very slight difference in percentage between the people who are aware of the benefits of IPR expiration and the people who are not aware of the benefits of IPR expiration.

Figure 06- Bi-furcation of awareness regarding the difference between generic and branded drugs

Are you aware with the difference of generic and branded drugs?
122 responses

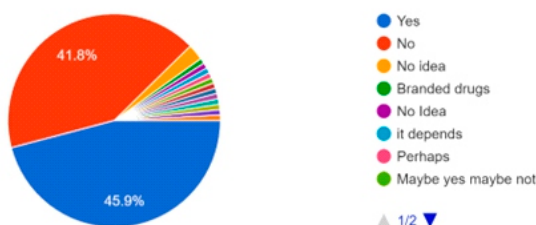


Generic Drugs and Branded Drugs are two completely different things, from the above it is observed that a majority of people [73.8%] know about the difference while there's also a percentage [26.2%] who don't know about the difference between the two.

These results are probably because people are more aware of branded drugs because of their promotion instead of the lower substitutes or generic drugs.

Figure 07- Bi-furcation of opinions of respondents regarding whether generic drugs are more effective or branded drugs.

Do you think that branded drugs are more effective than generic drugs?
122 responses



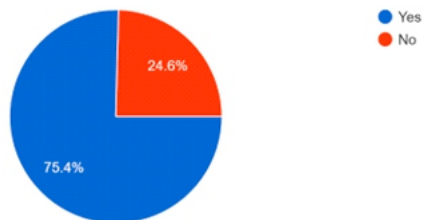
When asked if branded drugs are more efficient than generic drugs, the lead is taken by YES that branded drugs are more efficient than generic drugs followed by no and others [45.9% agreed to the statement while 41.8% refused the same and other 12.3% have different viewpoints].

The views differ because the brand has an established trust over the people and moreover people mostly tend to go with the brand when concerned with health care. For the people who responded as 'No Idea' might have not compared the two in depth.

Figure 08- Bi-furcation of awareness regarding IPR innovation among the respondents

Do you think IPR expiration facilitates innovation?

122 responses



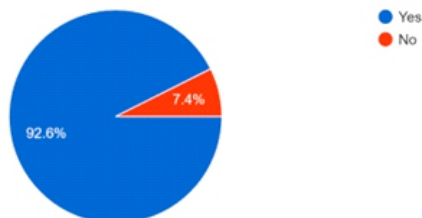
To the above statement, a majority of 75.4% do believe that the IPR expiration facilitates innovation while 24.6% do not believe the same.

The people in favor of the statement may have realized that IPR expiration might give opportunities to creative minds and help them grow.

Figure 09- Bi-furcation of opinions of respondents on the necessity of IPR innovations for India

Do you feel such innovations are necessary especially for a country like India?

122 responses



It is ascertained from the above that 92.6% of the respondents agree that the innovation opportunities are important especially for a developing country like India while a small percentage of 7.4% of respondents do not agree with the same.

The respondents who agreed with the statement may realize that the contribution of creative minds will not only benefit at an individual level but will also contribute to the country and help develop India as a whole.

RESULTS AND DISCUSSION

Major findings

- There was more student participation as compared to any other category of respondents.
- Majority of respondents are aware of the term IPR and its basics.; most of the respondents also know about various types of IPR.
- It is ascertained that people are somewhat aware about IPR expiration and the benefits it holds.
- The respondents know the difference between branded drugs and generic drugs.; they also know how to make a choice between the two based on their efficiency from their point of view.
- A significant part of respondents believe that IPR expiration in its positive impact can induce innovation and this innovation will contribute to India's overall development.

SUGGESTIONS

From what we perceive, the public can be made more aware of the topic of IPR; and acknowledge them about IPR expiration and the

benefits it can provide to any country especially if the country is at its developing stage. The people can be told about the opportunities and career lines this would provide to young, creative, and potential minds. The general public [mostly] tends to believe in branded drugs instead of generic drugs, to balance the two, generic drugs with good quality and efficiency can be promoted; the generic drugs as a substitute are comparatively cheaper than the branded ones and above all, they are in reach of the general public. There are both negative and positive impacts of IPR expiration, people should be made aware in such a manner that they create an environment of positivity and development not only at an individual level but as a whole. Here are several suggestions to harness the potential benefits of IPR expiration:

1. **Promote Open Innovation Initiatives:** Foster a culture of open innovation where knowledge sharing and collaboration are incentivized, even beyond the expiration of patents.
2. **Establish Technology Transfer Platforms:** Develop platforms that facilitate the transfer of expired patents and technologies from industries or research institutions to entrepreneurs and start-ups. This can catalyse the development of new products and services.
3. **Support Start-ups and SMEs:** Provide financial incentives, grants, and mentorship programs to support small and medium-sized enterprises (SMEs) and start-ups in leveraging expired patents for innovation. This can help in the creation of new products or services without the burden of high licensing fees.
4. **Create Innovation Hubs:** Establish dedicated innovation hubs or clusters where entrepreneurs, researchers, and businesses can collaborate and explore opportunities presented by expired

patents. These hubs can serve as catalysts for cross-disciplinary innovation.

5. **Develop Patent Libraries and Databases:** Create accessible and user-friendly databases of expired patents, making it easier for innovators to search and identify opportunities. This can be particularly beneficial for researchers and entrepreneurs seeking inspiration and information for new projects.
6. **Educate and Raise Awareness:** Conduct workshops, seminars, and awareness campaigns to educate stakeholders about the positive implications of IPR expiration. This includes informing businesses, researchers, and policymakers about the opportunities presented by expired patents.
7. **Leverage Government Initiatives:** Encourage the government to introduce policies that support innovation through the use of expired patents. This may involve tax incentives, grants, or streamlined regulatory processes for businesses leveraging expired intellectual property.
8. **Facilitate Licensing Agreements:** Streamline the licensing process for expired patents, making it easier for innovators to obtain licenses and utilize the knowledge embedded in these patents for new inventions.
9. **Encourage Research and Development (R&D) Collaborations:** Foster collaborations between industries and research institutions to jointly explore and develop innovative solutions. Shared R&D initiatives can maximize the impact of expired patents in driving innovation.
10. **Monitor Global Technological Trends:** Stay abreast of global technological trends and identify areas where expired patents

align with emerging technologies. This proactive approach can help India position itself at the forefront of technological advancements.

By implementing these suggestions, India can unlock innovation potential through IPR expiration, fostering a dynamic ecosystem where knowledge flows freely, and entrepreneurs thrive on the foundation of expired intellectual property.

CONCLUSION

IPR expiration leads to several things. Focusing on the innovation IPR expiration can create, it would help in creating fair competition in the market and give opportunity to everyone having capabilities to grow, meanwhile also reducing the monopoly of large-scale organizations. Not only this but it will also help the Indian market in diversifying itself. The increased availability of generic alternatives not only addresses public health challenges but also stimulates domestic pharmaceutical companies to innovate and diversify their product portfolios. However, it is crucial to acknowledge that the positive impact of IPR expiration is not without challenges. Industries must adapt to new market dynamics, and the original innovators must explore avenues for sustained competitiveness beyond the expiration of their patents. Striking the right balance between protecting intellectual property and fostering innovation remains a delicate task, requiring ongoing collaboration between industry stakeholders, policymakers, and the public.

In essence, India's journey in unlocking innovation through the positive impact of IPR expiration provides valuable lessons for

the global community. It reinforces the idea that a judicious and forward-thinking approach to intellectual property can be a driving force for positive change, not only within the pharmaceutical sector but across diverse industries. As we navigate the evolving landscape of innovation, the Indian experience encourages us to envision a future where intellectual property catalyses progress, accessibility, and global well-being.

In conclusion, the exploration of the positive impact of Intellectual Property Rights (IPR) expiration in India, with a special focus on the pharmaceutical industry, underscores the transformative potential of a balanced approach to intellectual property. As patents reach maturity and barriers to entry diminish, the landscape of innovation undergoes a profound shift, heralding positive outcomes for both the industry and the broader society.

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