Intellectual Property Rights and Global Trade Challenges: A Comparison of Protection Systems in Indonesia and Asean Countries

Dina Andiza, Hasdiana Juwita Bintang

Abstract

Intellectual property rights (IPR) protection has a very important role in dealing with the dynamics of global trade. Along with the increase in international transactions and the development of digital technology, the challenges of safeguarding intellectual property rights are increasingly complex. This study aims to analyze the comparison of intellectual property protection systems in Indonesia and ASEAN countries, as well as how the challenges faced by each country in the context of global trade. The approach used is comparative legal research by examining regulations and policies related to intellectual property in Indonesia and several ASEAN countries, such as Singapore, Thailand, and Malaysia. The results show that although ASEAN countries have harmonized their intellectual property protection systems through the ASEAN IPRs Agreement and international agreements such as the TRIPS Agreement, there are differences in the implementation and legal oversight between these countries. Indonesia faces challenges in terms of law enforcement against intellectual property infringement, while countries such as Singapore and Malaysia have stronger protection systems thanks to stricter and more modern policies. In addition, the protection system implemented in Indonesia still has gaps in terms of adjusting to the development of digital technology and e-commerce, which is a major challenge in protecting intellectual property rights. This study concludes that to face global trade challenges, Indonesia needs to strengthen supervision, increase public legal awareness, and carry out legal reforms to adapt to international standards and technological developments.

Keywords: Intellectual Property, Global Trade, Intellectual Property Protection, ASEAN.

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Introduction

Intellectual Property Rights (IPR) are legal protection provided to creators and inventors to protect their intellectual creations and innovations (AlMakhzoumi et al., 2024). These rights are crucial to driving innovation, creativity, and economic growth by giving inventors and creators exclusive rights to use and utilize their creations for a certain period of time. Intellectual Property Rights include various forms of protection, including patents, copyrights, trademarks, trade secrets and so on (Ariyesti et al., 2022; Mantoro et al., 2013; Purwaningsih, 2020). Intellectual Property Rights play a crucial role in driving innovation, economic growth, protecting investment, and maintaining fair competition. By granting exclusive rights, IPR incentivizes individuals and companies to invest in research and development, leading to the creation of new products, services, and technologies. IPR contributes to economic growth by allowing creators to commercialize their innovations, thereby generating income and creating jobs (Singh & Kaunert, 2024). IPR ensures that inventors and creators can recoup their investment by preventing unauthorized use and distribution of their creations. Further, by protecting against unauthorized use, IPR helps maintain fair competition in the market. The digital revolution and biotechnology have presented new challenges for IPR, such as the need for legislative reforms to address issues such as digital piracy and AI-generated works (Singh et al., 2025). In addition, the globalization of trade has increased the complexity of IPR enforcement in various jurisdictions. The commercialization of intellectual property involves transforming an invention into a marketable product or service. This process is essential to the financial success of innovation and requires expertise in intellectual property management. IPR valuation can be done through a variety of methods, including revenue approaches, market approaches, and cost approaches, as well as newer mathematical models. International agreements, such as the Intellectual Property Rights Trade Agreement (TRIPS), set minimum standards for the protection of IPR globally, which influences national policies and law enforcement practices (Allard Soto, 2015; Howard et al., 2025). However, differences in the enforcement and enforcement of IPR laws in different countries can lead to selective protection in certain industries. In summary, IPR is essential to encourage innovation, protect investment, and drive economic growth. IPR encompasses various forms of protection and faces the everevolving challenges of the digital age.

Effective management and enforcement of IPR is essential to maximize its benefits and ensure fair competition. Trade in Intellectual Property Rights, which was established under the World Trade Organization (WTO) in 1995 (Malbon et al., 2014). TRIPS is renowned for its comprehensive coverage, setting minimum standards for various forms of intellectual property, including patents, trademarks, and geographical indications. TRIPS also integrates IPR with international trade, so that it can be enforced through the WTO's dispute resolution mechanism. TRIPS covers a wide range of intellectual property rights, including copyrights, trademarks, geographical indications, industrial design, patents, and integrated circuit layout design (Fina & Lentner, 2019). TRIPS is unique in that it allows enforcement of its provisions through a WTO dispute resolution mechanism, which can include legal action and trade sanctions. There is an ongoing tension between the protection of Intellectual Property Rights and public health needs, especially in the context of access to medicines. The provisions of TRIPS-plus in bilateral agreements can sometimes conflict with the right to health as set out in international human rights treaties. Some international treaties contain ambiguous provisions that can lead to diverse interpretations and implementation challenges. In conclusion, the TRIPS Agreement is the cornerstone of international intellectual property law, underpinned by various other multilateral, regional, and bilateral agreements that collectively shape the global IPR landscape. These treaties aim to balance the protection of intellectual property with other public interests, such as public health and access to essential medicines.

Intellectual Property Rights in Indonesia play an important role in supporting economic development by encouraging innovation and increasing national competitiveness. The

Directorate General of Intellectual Property Rights (DJHKI), under the Ministry of Law and Human Rights, is responsible for the registration and protection of various forms of intellectual property, including patents, trademarks, copyrights, industrial designs, integrated circuit layout designs, and trade secrets. Indonesia, as a member of the World Trade Organization (WTO), has aligned its IPR laws with the TRIPS Agreement (Amirulloh & Muchtar, 2024). Major changes to patent, trademark, and copyright laws were made in 1997, followed by the establishment of laws for industrial design, and trade secrets. Despite being rich in natural resources, Indonesia has registered only 65 geographical indications, highlighting the need for better protection and promotion of products such as Mandar coconut oil (Sari et al., 2019).

Many Indonesians have difficulty accessing IPR information that is specific to their provinces, such as featured trademarks or geographical indications. Currently, there is no mobile application that provides IPR-based information services, which can bridge this gap. The legislative framework for trademarks needs to be reconsidered, especially with regard to international trademark protection. Administratively, the compliance framework is still weak, leading to a lack of trust among businesses and investors.

Indonesia's diverse cultural heritage requires communal intellectual property protection to prevent misuse by foreign entities. This includes both legal and non-legal protections. Indonesia adheres to a "first to file" system for patent protection, similar to Japan and the United States (Waspiah et al., 2023). However, law enforcement mechanisms need to be improved so that disputes can be handled effectively. Law enforcement faces obstacles due to limited knowledge of government officials and low public awareness. Corruption and the perception that copyright infringement is not a serious violation further complicates law enforcement. Ultimately, legislative reform and synchronization are needed to better protect innovation, including innovations that are contrary to religious beliefs, and ensure comprehensive coverage of all aspects. Another strategy is to increase awareness and understanding of IPR among the public and government officials to improve compliance and law enforcement

Literature Review

2.1 Concept and Function of Intellectual Property Rights (IPR)

Intellectual Property Rights (IPR) are legal rights granted to individuals or groups for their intellectual works. In international law, IPR includes various forms of protection of human copyrights, such as copyrights, patents, trademarks, industrial designs, and geographical indications. According to the World Intellectual Property Organization (WIPO), IPR protects the results of creativity that provide economic benefits to its holders and encourage global technological, cultural, and economic development (WIPO, 2021). The main function of IPR protection is to provide incentives for creators and inventors to continue to innovate. With the exclusive right to utilize their work, rights holders can commercialize the results of innovation and gain economic benefits, which in turn increases their market competitiveness. On the other hand, IPR protection also serves to protect consumers and the public from fraudulent and counterfeit product practices. Overall, IPR not only protects individual rights, but also creates a business climate conducive to innovation and global economic progress (Bently & Sherman, 2014).

2.2 Types of Intellectual Property Rights

IPR consists of several types, each of which has a different function and purpose. Each of these types of rights has its own protection mechanisms, which are regulated in national and international laws and regulations. Here are the main types of IPR:

a. A patent is an exclusive right granted to an inventor to make, use, or sell his invention for a certain period of time, generally 20 years from the date of registration (Strauss, 2015). Patents provide protection for new and useful technical inventions, whether in the fields of technology, medicine, and other industries.
b. A trademark is a mark used to distinguish goods or services produced by one company from another. Registered trademarks give their owners the exclusive right to use the mark in commerce. Trademark protection can last for 10 years and can be extended for an indefinite period of time (Harrison, 2016).
c. Copyright protects creative works such as music, literature, art, and other original copyrights. Unlike patents, copyright does not protect ideas or concepts, but rather protects the expression of those ideas in physical form (Merrill, 2017). Copyright is usually valid for 50 to 70 years after the creator dies, depending on the country where the right is registered.
d. Industrial Design protects the aesthetic shape or appearance of a product which can be a line design or a three-dimensional shape. This design must be new and original to obtain protection (Edwards, 2018).
e. Geographical Indication is a sign used to indicate that a particular good or service comes from an area or region with the qualities and characteristics produced by the geographical conditions of that area. An example that is often used is "Kopi Gayo" from Aceh or "Swiss Cheese" (Kurtz, 2019).

Intellectual Property Rights Protection in Indonesia has a comprehensive legal system in terms of IPR protection, which is regulated in several key laws, including:

a. Law No. 13 of 2016 concerning Patents, which regulates the right to technological inventions and innovations.
b. Law No. 20 of 2016 concerning Trademarks and Geographical Indications, which regulates the protection of trademarks and products originating from certain regions.
c. Law No. 28 of 2014 concerning Copyright, which provides protection for copyrighted works, including works of art, music, and other works.

Although Indonesia has ratified various international conventions such as the TRIPS (Trade-Related Aspects of Intellectual Property Rights) Agreement, which sets minimum standards for the protection of IPR in international trade, the implementation and enforcement of IPR laws in Indonesia still faces a number of obstacles. Some of the main challenges faced by Indonesia in the IPR protection system are the low awareness of the public and small and medium enterprises (SMEs) on the importance of IPR protection, as well as the lack of effective law enforcement capacity, especially in areas that do not have adequate legal infrastructure (Setiawan & Ramadhan, 2018).

In addition, although Indonesia already has relatively complete regulations in terms of IPR protection, issues such as counterfeiting and copyright infringement remain significant issues. This calls for stricter law enforcement and increased cooperation between the government, the private sector, and the public to create greater awareness of the importance of intellectual property rights.

2.3 Global Challenges in Intellectual Property Rights Protection

In the context of global trade, IPR protection faces major challenges due to differences in regulations between countries. Although World Trade Organization (WTO) member countries have agreed to abide by the TRIPS agreement, the implementation of different regulations can create an imbalance in international protection and trade. In addition, with the rapid

development of technology and digital commerce, internet-connected products, such as software, apps, and digital media, are increasingly difficult to fully protect.

The main issues that arise in the context of globalization are the circulation of counterfeit goods and copyright infringement through digital platforms. In many developing countries, IPR infringements are still common, with counterfeit products that can be produced at low cost and distributed en masse through e-commerce and international trade. This causes huge losses to copyright owners and lowers the quality of products in the global market. According to a WIPO report (2021), global counterfeit trade reaches trillions of dollars every year, creating a major challenge for countries with weak IPR protection systems.

In addition, in the global trading system, regulatory disalignment between countries also creates difficulties in cross-border law enforcement. Many business actors and consumers feel that IPR protection is more beneficial to developed countries that have stronger law enforcement capacity than developing countries. In this regard, developing countries, including Indonesia, are faced with challenges in adopting new technologies and ensuring that their regulations are aligned with international standards, while still paying attention to their local economic conditions (Norton, 2016).

ASEAN has 10 member states, and despite efforts to harmonize IPR regulations through various regional agreements, large differences in legal, economic, and law enforcement infrastructure between countries remain. Countries such as Singapore, Malaysia, and Thailand have more advanced IPR protection systems, with efficient law enforcement agencies and policies that are more open to innovation and foreign investment. On the other hand, countries such as Myanmar, Laos, and Cambodia still face difficulties in law enforcement and adequate regulatory enforcement.

A comparative study by Koh & Tan (2016) shows that more developed ASEAN countries have more mature systems in terms of IPR registration and supervision, with clear legal mechanisms and strong law enforcement institutions. On the other hand, countries with limited resources are more vulnerable to IPR violations, with weaker enforcement and limited government support. Therefore, despite progress in the harmonization of IPR regulations in ASEAN, challenges in implementation remain a major obstacle to achieving effective IPR protection across the region.

Overall, the biggest challenge in IPR protection at the global and ASEAN regional levels is the gap in legal capacity and enforcement infrastructure. Developing countries, including Indonesia, need to increase the capacity of their law enforcement agencies, raise public and business awareness of the importance of IPR, and adapt their regulations to global technological developments. On the other hand, a comparison of IPR systems in ASEAN countries shows that despite significant differences, there is great potential to increase regional cooperation to strengthen IPR protection, which in turn will support fairer and more efficient global trade.

Results 4.1 Intellectual Property Rights in a Global Perspective

Intellectual Property Rights (IPR) has become one of the key issues in international trade. IPR is the exclusive right granted by the state to creators or inventors over the intellectual works they produce, such as inventions, works of art, industrial design, trademarks, and geographical indications (WIPO, 2021). In the era of globalization marked by the growth of the knowledge-based economy, IPR is no longer just about protecting creativity, but also a strategic instrument in increasing the competitiveness and bargaining position of a country in global trade (Bently & Sherman, 2014). At the international level, IPR is covered by multilateral agreements such as the TRIPS Agreement (Trade-Related Aspects of Intellectual Property Rights), which was ratified through the World Trade Organization (WTO) in 1994. TRIPS sets minimum standards for IPR protection that must be adopted by WTO member countries, including ASEAN countries. This agreement promotes the harmonization of IPR

protection around the world and strengthens the relationship between IPR and global trade (Gervais, 2015). TRIPS also regulates the dispute settlement mechanism between countries, making it the most legally binding IPR agreement.

IPR plays an important role in innovation and economic growth because it provides incentives for inventors and creators to develop new technologies, creative products, and improve the quality of production. Without IPR protection, intellectual works will be very vulnerable to copying, thereby reducing the motivation of industry players to invest in research and development (Maskus, 2012).

4.2 IPR Protection System in Indonesia

Indonesia is one of the developing countries that continues to strive to strengthen the IPR protection system through various regulations. The main laws governing IPR in Indonesia include:

a. Law No. 28 of 2014 concerning Copyright
b. Law No. 13 of 2016 concerning Patents
c. Law No. 20 of 2016 concerning Trademarks and Geographical Indications
d. Law No. 31 of 2000 concerning Industrial Design

In the modern era, these regulations are adjusted to international standards, especially after Indonesia ratified TRIPS through Law No. 7 of 1994. This harmonization shows Indonesia's commitment to be an active part of the global trading system (Setiawan & Ramadhan, 2018).

However, although the legal framework is adequate, the big problem facing Indonesia lies in the implementation and enforcement of the law. Challenges such as piracy, brand counterfeiting, and digital copyright infringement are still rampant. Indonesia is recorded as one of the countries with a fairly high rate of IPR violations, especially in the music, film, and consumer product industries (Umar, 2020).

Some of the factors causing the weak protection of IPR in Indonesia are:

1. Low public awareness
   Many small and medium enterprises (SMEs) are not aware of the importance of registering IPR as a legal asset. This makes their products vulnerable to counterfeiting and unable to compete in the global market (Sutrisno, 2021).
2. Limited capacity of law enforcement agencies
   Limited human resources, technology, and interagency coordination make the IPR enforcement process ineffective (Rahardjo, 2020).
3. The rise of digital piracy and the circulation of counterfeit goods
   The development of e-commerce platforms makes it easier to distribute counterfeit goods across regions and countries (Hidayat, 2022).

According to the OECD report (2020), Indonesia is included in the main transit route for counterfeit goods such as cosmetics, electronic products, and branded clothing. This shows that supervision still needs to be improved.

4.3 Global Trade Challenges to IPR Protection

Global trade opens up opportunities for the circulation of counterfeit goods across countries. A World Customs Organization report (2022) states that global counterfeit goods are worth more than USD 500 billion per year. The most frequently counterfeited products in ASEAN include:

a. Fashion & apparel
b. Electronic
c. Cosmetics
d. Medications

Indonesia, Vietnam, and Thailand are said to be the largest markets for counterfeit goods in Southeast Asia. Selling counterfeit goods is getting easier through platforms such as

international marketplaces. Counterfeit products can be sent from one ASEAN country to another without strict control. This greatly complicates the IPR enforcement process (Koh & Tan, 2016). Modern technology is creating new forms of IPR infringement such as: a. Use of unlicensed works on digital platforms

b. Software Piracy

c. deepfakes and unauthorized AI works

d. Disclosure of trade secrets through cybercrime

ASEAN countries still do not have complete regulations regulating digital technologybased IPR.

Overall, IPR protection is an important factor that affects global competitiveness, trade flows, investment, and the sustainability of the creative industry. Indonesia already has a strong regulatory framework, but implementation and enforcement of the law is still a major challenge. Compared to other ASEAN countries, Indonesia lags behind Singapore, Malaysia, and Thailand in terms of enforcement effectiveness and service technology.

Global trade challenges such as counterfeiting, cross-border e-commerce, digital technology developments, and weak regional coordination are factors influencing the effectiveness of IPR protection in the region. Therefore, it is necessary to increase legal capacity, digitize the system, educate the public, and cooperate with ASEAN so that IPR can truly become an instrument to increase regional competitiveness.

Conclusion

Intellectual Property Rights (IPR) are an important instrument in supporting innovation, creativity, and economic growth in the era of global trade. IPR protection not only serves to maintain the exclusive rights of creators or inventors, but also plays a strategic role in strengthening a country's competitiveness, attracting foreign investment, protecting consumers, and encouraging the development of the creative industry. In an increasingly integrated global context through agreements such as TRIPS, all countries — including Indonesia and ASEAN countries — are required to have an IPR protection system that is effective, modern, and adaptive to technological change.

Indonesia already has a fairly complete IPR regulatory framework, but serious problems still arise at the implementation and enforcement stages. The main challenges include low public awareness, rampant piracy and counterfeiting of products, weak capacity of law enforcement agencies, and the lack of optimal digitalization of the IPR administration system. This condition results in a high level of IPR infringement in Indonesia and has negative implications for national economic competitiveness. On the other hand, other ASEAN countries such as Singapore, Malaysia, and Thailand show a more advanced level of IPR protection, both in terms of regulation, institutional, and law enforcement effectiveness. Singapore is a benchmark for IPR protection in ASEAN with a modern digital system and strong law enforcement mechanisms. Malaysia and Thailand are also relatively better at providing legal certainty to IPR owners. Meanwhile, Vietnam, Laos, Cambodia, and Myanmar are still in the stages of developing basic IPR systems, with similar challenges in the form of limited resources, institutional capacity, and legal culture. In the context of global trade, all ASEAN countries face major challenges such as the cross-border circulation of counterfeit goods, digital piracy, the development of AI-based technology, and online trade that is difficult to monitor. The difference in the level of development of the IPR system between countries affects the effectiveness of IPR protection as a whole in the ASEAN region. Without stronger policy harmonization, efforts to create a secure and competitive regional market will be difficult to achieve. Therefore, the comparison of IPR protection systems between Indonesia and ASEAN countries shows the need for strategic steps to strengthen IPR protection in

Indonesia and the ASEAN region as a whole. This can be done through increasing law enforcement capacity, digitizing IPR systems, public education, increasing ASEAN crossborder collaboration, and policy formulation that is responsive to technological developments and global trade dynamics. Thus, IPR can truly be a strong foundation in improving economic competitiveness, attracting investment, and strengthening ASEAN's position in international trade.

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