

Legal Challenges in Managing Intellectual Property Rights in Business Information Systems

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ABSTRACT

With the advancement of information technology, business information systems have become integral elements in business operations across various sectors. However, the use of this technology also brings new challenges in managing intellectual property rights, including the protection of copyrights, patents, trademarks, and others. This research aims to analyze the legal challenges in managing intellectual property rights in business information systems through the perspective of Law No. 11 of 2008 concerning Electronic Information and Transactions in Indonesia. The method used in this research is a qualitative literature review, drawing data from Google Scholar for the period from 2009 to 2024. The qualitative approach in the literature review allows researchers to understand the complex and diverse phenomena related to the research topic. The results of the study indicate that the management of intellectual property rights (IPR) in business information systems in Indonesia faces complex legal challenges. Although Law Number 11 of 2008 concerning Electronic Information and Transactions (ITE Law) provides a framework, its implementation often leads to uncertainty and challenges in IPR protection. One of the main challenges is the clarity and legal certainty in the digital environment, as well as consistent law enforcement against IPR violations. Thus, there is a need to enhance cooperation between the government, law enforcement agencies, and the private sector to improve law enforcement related to IPR in business information systems.

Keywords: Law, Intellectual Property Rights, Business Information Systems

INTRODUCTION

In an era dominated by advancements in information technology, business information systems have become ingrained in the operations across various sectors (Arjang et al., 2023). However, the integration of this technology also poses diverse challenges in managing intellectual property rights, necessitating robust protection of aspects such as copyrights, patents, trademarks, and other core elements crucial to modern business activities.

Intellectual Property Rights (IPR) constitute an integral part of a company's assets, potentially providing competitive advantages and significant added value (Teixeira & Ferreira, 2019). Nevertheless, in the context of managing IPR through business information systems, its complexity often requires a profound understanding of relevant legal regulations. In facing market dynamics and evolving business needs, the presence of IPR becomes increasingly vital for companies as a foundation to safeguard their innovations, products, and trademarks from potential infringements and misuse (Krasnikov & Jayachandran, 2022). A careful understanding of the legal aspects related to IPR within the context of business information systems is imperative for companies to ensure the sustainability and optimal protection of their intellectual assets.

The Electronic Information and Transactions Law (ITE Law) play a central role in establishing the legal framework for electronic transactions, including the management of Intellectual Property Rights (IPR) within the context of business information systems. However, the implementation and interpretation of UU ITE, especially concerning IPR, often present

difficulties and ambiguities that require specific legal handling. The complex aspects of implementing UU ITE in the context of IPR demand a deep understanding of the legal dynamics related to copyrights, patents, and trademarks within the scope of electronic transactions (Ramli, 2020). It is crucial for business practitioners to carefully consider these aspects to effectively manage their IPR and minimize legal risks that may arise due to misunderstandings or misinterpretations in the implementation of ITE Law.

The application of technology within the framework of business information systems often poses various challenges, both technically and legally, especially concerning the management of Intellectual Property Rights (IPR). These challenges encompass a range of complex issues, such as data security requiring stringent protection to prevent copyright infringements and unauthorized use of information owned by the company (Zhu & Song, 2022). Moreover, technology adoption can also impact trademark areas with the emergence of potential disputes related to brand identity and reputation. Issues like these underscore the importance of careful management of IPR within the context of business information systems, necessitating a deep understanding of the technical and legal aspects involved, as well as the need to implement effective strategies in addressing challenges in this digital era.

An essential aspect of managing Intellectual Property Rights (IPR) within the context of business information systems is the protection of rights holders, including creators, trademark owners, and patent holders, as well as consumer rights. Ensuring the sustainability and integrity of these IPR involves a profound understanding of relevant regulations and legal practices, as well as the implementation of effective strategies to protect these rights from potential infringements and misuse. Additionally, in managing IPR, it is crucial to consider consumer interests by ensuring that their rights are not overlooked or violated in the process of using information technology in business operations. Given this complexity, managing IPR within business information systems requires a holistic approach that takes into account various legal, ethical, and business practice aspects to ensure appropriate compliance and optimal protection for all involved parties.

LITERATURE REVIEW

Law

Law is a system of rules and principles created and enforced by the government or authorized authority within a country or specific society to regulate the behavior of individuals, groups, and institutions within society (Toule, 2022). It encompasses a set of norms and regulations that govern various aspects of life, ranging from interpersonal relationships to the relationship between individuals and the government. Law also includes legal procedures used to enforce these rules and resolve disputes between different parties. The primary purpose of law is to establish order, justice, and protection for all members of society. Thus, law plays a crucial role in maintaining social stability, guaranteeing the rights and obligations of each individual, and providing a foundation for the enforcement of fair and consistent rules (Mahmod, 2013).

Intellectual Property Rights (IPR)

Intellectual Property Rights (IPR) refer to the rights granted to individuals or entities to protect their creative works and intellectual activities (Bhattacharya & Saha, 2011). It includes rights such as copyright, patents, trademarks, trade secrets, and industrial designs. Copyright provides protection for original works such as writings, music, and art, while patents grant exclusive rights to new inventions and innovative processes or products. Trademarks grant exclusive rights to the use of symbols or names that distinguish products or services from those of competitors. Meanwhile, trade secrets protect confidential company information with commercial value, while industrial designs provide rights to the appearance or aesthetics of industrial products (Irianto & Wardani, 2023). IPR incentivizes innovation and creativity by giving holders exclusive rights to exploit and benefit from their works. Through IPR protection, individuals or entities can safeguard their investments in creation and innovation, promote economic growth, and advance culture and technology.

Business Information Systems (BIS)



Business Information Systems (BIS) are technological infrastructures used by companies or organizations to manage, store, process, and communicate information related to their business activities (Mgunda, 2019). BIS not only encompasses software and hardware used to automate business processes but also includes procedures, policies, and people involved in managing this information. The main purpose of BIS is to aid in more effective decision-making, improve operational efficiency, and support business growth and development (Abu-ALSondos, 2023). BIS can include various types of systems such as database management systems, customer relationship management (CRM) systems, supply chain management (SCM) systems, enterprise resource planning (ERP) systems, and others designed to meet the specific needs of various business functions, from production to marketing and finance (Yang & Su, 2009). By effectively using BIS, companies can collect, manage, and analyze data better, enabling them to respond quickly to market changes, enhance customer satisfaction, and achieve their business goals more efficiently.

RESEARCH METHOD

The method used in this research is a qualitative literature review, drawing data from Google Scholar for the period from 2009 to 2024. The qualitative approach in literature review allows researchers to understand the complex and diverse phenomena related to legal challenges in managing intellectual property rights in business information systems, particularly from the perspective of the Law Number 11 of 2008 concerning Electronic Information and Transactions (ITE Law) in Indonesia. By using Google Scholar as the primary data source, this research will search for and analyze articles, journals, and related scholarly publications published within the specified time frame. The obtained data will be qualitatively analyzed to identify patterns, trends, and themes emerging in the literature, as well as to understand different perspectives and approaches to the researched issue. This approach is expected to provide a deeper understanding of the complexity of the issues at hand and offer valuable insights for the advancement of knowledge in this field.

RESULTS AND DISCUSSION

The management of intellectual property rights (IPR) in the context of business information systems is a significant focus for companies in the digital era. The legal challenges that arise in line with technological advances and business dynamics show the complexity that needs to be addressed, especially in Indonesia. This signifies the need for serious attention to the legal aspects relating to the management of IPR in the context of business information systems, given their important role in ensuring the sustainability and security of company operations in the face of increasingly fierce global competition.

Primary in understanding the context of managing intellectual property rights (IPR) in business information systems in Indonesia is an in-depth understanding of Law Number 11 of 2008 concerning Electronic Information and Transactions (ITE Law). The ITE Law has become the main pillar in regulating electronic transactions and online business in Indonesia (Priowirjanto, 2014). However, while the ITE Law provides a crucial foundation for the management of electronic information, its implementation often raises a complex set of legal challenges. These challenges evolve, especially when considered within the framework of IPR in business information systems, raising critical questions about the need for legal adaptation to the changing dynamics of business and technology. Thus, clarity in interpreting the ITE Law and its application is essential in ensuring the successful management of IPR in the current digital era, while also ensuring adequate protection of intellectual property rights owners.

One crucial aspect that requires attention is the clarity and legal certainty related to the protection of intellectual property rights (IPR) in the digital era. While Law No. 11/2008 on Electronic Information and Transactions (ITE Law) provides a framework governing copyrights, trademarks, patents, and other forms of IPR, challenges arise in consistent interpretation and enforcement. This issue creates uncertainty for companies in their intellectual asset management and protection strategies in the ever-evolving digital business environment. Consistency in law

enforcement is necessary to ensure that IPR rights are effectively respected and protected, while maintaining a fair balance between business interests, innovation, and consumer protection (Saputra & Rizki, 2024). Decisive and cohesive measures in addressing legal uncertainty in the IPR sector are necessary to create a stable and sustainable digital business environment.

In addition to the challenges previously described, there are additional problems that demand attention, namely the increase in cases of intellectual property rights (IPR) violations in the context of business information systems. The continuous development of digital technology has opened the door for the emergence of various IPR infringement practices, including but not limited to trademark counterfeiting, digital content theft, and copyright infringement ((Arlan, 2023). While legal frameworks exist to address this, enforcement is often a complex challenge. This complexity is due to the technical nature of IPR infringement in the digital context, which requires a deep understanding of the technology involved, as well as the limited resources that law enforcement agencies have to deal with it effectively. Thus, greater efforts are required in developing adaptive and progressive enforcement strategies to address IPR infringement in business information systems as a whole, as technological developments continue.

In addition to the previous challenges, there are additional complexities that require careful handling, namely finding the right balance between the protection of intellectual property rights (IPR) and freedom of expression in the context of the digital environment. The implementation of Law No. 11/2008 on Electronic Information and Transactions (ITE Law) has given rise to a series of debates on the boundaries that should be applied to protect IPR without stifling innovation and creativity in digital content. An imbalance between IPR protection and freedom of expression could negatively impact the growth of the digital economy, reduce the attractiveness for investment in technological innovation, and potentially even limit people's access to valuable information and cultural works (Siregar & Sinurat, 2019). Finding a balanced and inclusive approach in treating these two aspects is therefore essential in ensuring a sustainable and highly competitive digital ecosystem in the future. This requires strong cross-sector dialogue and active engagement of stakeholders from government, industry and civil society to reach sufficient consensus and balance diverse interests.

Alongside the legal challenges that have been highlighted, the importance of compliance with international intellectual property rights (IPR) regulations and standards stands out as a crucial aspect in the context of Indonesia connecting with the global community. As an integral part of the global arena, Indonesia is required to ensure that its legal framework is in line with international standards in IPR protection. Strong adherence to these regulations and standards not only signifies Indonesia's commitment to strengthening IPR protection, but is also an important step to facilitate sustainable international trade and to strengthen the country's reputation as a favourable environment for investment and innovation (Quoc, 2021). Strengthening legal and administrative infrastructure in line with international standards can also boost foreign investor confidence, encourage beneficial technology transfer, and expand Indonesia's access to a wider global market, which in turn can provide a significant boost to the country's economic growth. Thus, focusing on compliance with international IPR regulations and standards not only strengthens the IPR protection system at the national level, but also positively impacts Indonesia's position in an increasingly integrated global economic stage.

In the face of the complexity of the challenges faced, concrete steps are needed to strengthen the legal framework governing the management of intellectual property rights (IPR) in business information systems in Indonesia. These steps include efforts to enhance cooperation between the government, law enforcement agencies, and the private sector to strengthen law enforcement, develop clearer and more comprehensive regulations, and improve public education on the importance of IPR protection in the context of an evolving digital environment. Collaboration between these various stakeholders will help strengthen legal infrastructure, increase understanding of the legal implications of IPR management, and create broader awareness of the importance of compliance with IPR regulations (Barizah, 2017). In addition, the development of regulations that are more comprehensive and responsive to the dynamics of business and technology will help create an adaptive and progressive legal environment that keeps pace with

global demands and fosters innovation and sustainable economic growth. Enhanced cooperation and concrete actions such as these are thus crucial steps in strengthening IPR protection and management in today's digital age.

By addressing the challenges faced and strengthening the relevant legal framework, Indonesia can create a digital business environment that is not only stable, but also safe and innovative, which in turn will provide a significant boost to long-term economic growth and increase investment attractiveness. The importance of these measures is not only limited to the protection of companies' intellectual assets, but is also linked to efforts to maintain Indonesia's position as a major player in the global digital economy. With increased confidence in a strong legal system and digital business infrastructure, Indonesia can attract more investment from both within and outside the country, facilitate the growth of the technology and innovation sectors, and increase people's access to the resulting economic benefits. Thus, efforts to address the challenges and strengthen the appropriate legal framework will make a significant contribution to building a solid foundation for the future of Indonesia's digital economy.

In addition to the challenges previously discussed, there are several additional aspects that need to be considered in the context of managing intellectual property rights (IPR) in business information systems, especially when viewed from the perspective of Law Number 11 of 2008 concerning Electronic Information and Transactions (ITE Law) in Indonesia. One important aspect is the application of increasingly advanced technology in the context of piracy and IPR infringement, which demands an adaptive and innovative legal response (Yanto, 2020). In addition, it is also important to consider the implications of globalisation and digital interconnection on IPR management, given that companies can operate and compete in the global market more easily in this digital era. In this framework, regulatory changes and cross-border co-operation are becoming increasingly important to ensure effective protection of IPRs amidst the accelerating global flow of information and trade. Thus, while evaluating the challenges in the context of the ITE Law, it is also necessary to consider the global dynamics surrounding the management of IPR in Indonesia's business information system.

One important aspect that requires attention in the context of intellectual property rights (IPR) management in business information systems is data protection and privacy. In an era where large-scale collection, use, and exchange of data is increasingly common, it has become essential for companies to ensure that their IPR management also includes the protection of users' personal and sensitive data. As awareness of data privacy increases, companies must take proactive steps to ensure compliance with applicable data privacy regulations and observe relevant ethical standards (Aldboush & Ferdous, 2023). Data privacy breaches can not only result in serious legal sanctions, but can also significantly damage a company's reputation, threaten relationships with customers and other stakeholders, and affect public trust in the brands and products they offer. Therefore, in designing IPR management strategies, companies should prioritise data protection and privacy efforts as an integral part of their business operations, to maintain trust and credibility in an increasingly connected and intertwined marketplace.

In addition to the challenges previously outlined, it is also necessary to consider challenges arising from global dynamics in the context of intellectual property rights (IPR) management. In an increasingly connected digital age, companies are no longer confined to domestic markets, but rather often operate in global markets and engage in cross-border information exchange (Luo, 2022). This engagement presents additional complexities in IPR management, given the significant differences in IPR regulations and laws across countries. These differences may affect companies' strategies in effectively protecting and enforcing their intellectual property rights. Moreover, aspects of geopolitics and international relations also play an important role in this context, with political developments and policy changes at the global level that can have a direct impact on a company's IPR management. Companies must be able to navigate these complexities sensibly, taking into account the need for adaptation and flexibility in their IPR management strategies in order to remain relevant and effective in the changing global marketplace.

The role of courts and law enforcement agencies becomes crucial in addressing legal challenges relating to the management of intellectual property rights (IPR) in the digital

environment (Hanafi & Lubis, 2023). Courts have an important responsibility to understand the complex issues related to IPR in the digital context and have the capacity to resolve disputes that arise fairly and efficiently. To that end, investment in training and the development of in-depth legal knowledge on the aspects of IPR in the digital environment is required for the courts to function effectively as reliable dispute resolvers. In addition, law enforcement agencies need to be equipped with adequate resources and the necessary skills to investigate and vigorously enforce IPR infringements. This involves increasing the availability of experts trained in both technology and law, as well as the use of advanced forensic technologies to gather strong electronic evidence. Thus, enhancing the capacity and competence of courts and law enforcement agencies is key in ensuring effective protection of IPRs in the ever-evolving digital age.

In addition to addressing legal challenges, companies are also faced with the need to develop effective proactive strategies for managing their intellectual property rights (IPR) in the context of business information systems. This strategy includes a series of steps that include the implementation of clear and detailed internal policies related to copyrights, trademarks, and patents, as well as investment in security technologies and systems capable of securing and protecting the company's intellectual assets from various threats, both internal and external. Establishing a robust and consistent internal policy on IPR is an important first step in maintaining the integrity and security of a company's intellectual assets. This step not only clarifies the company's rights and obligations related to IPR, but also builds employee awareness and compliance with established standards and procedures. In addition, investment in advanced security technologies and systems is a crucial strategy in ensuring that the company's sensitive information and intellectual assets are effectively protected from cyber threats, data theft, and other IPR violations (Alqudhaibi et al., 2024). Thus, developing a holistic proactive strategy in IPR management not only minimises risks and losses, but also strengthens the company's foundation for long-term growth and sustainability in the ever-evolving digital age.

It is important for companies to strengthen co-operation with various other stakeholders, including the government, law enforcement agencies, and the business community, as an integral part of the collective effort to address existing challenges and ensure viability and innovation in the digital business environment. Close collaboration between companies and external stakeholders is a strong foundation for strengthening legal and regulatory frameworks, and facilitates the exchange of information and resources that are essential in addressing issues related to intellectual property rights (IPR) and other challenges in the digital ecosystem. Through continuous dialogue and cooperation, companies can better understand the needs and expectations of various stakeholders, allowing them to develop strategies that are more holistic and responsive to the changing business environment (Fobbe & Hilletoft, 2021). In addition, cross-sectoral co-operation also enables joint capacity building in the face of increasingly complex challenges, and creates opportunities for collaboration in innovation and sustainable technology development. Strengthening multi-stakeholder cooperation is an important step in building a dynamic, inclusive and highly competitive digital business environment in a changing era.

Overall, the management of intellectual property rights (IPR) in the context of business information systems in Indonesia faces a number of complex and multidimensional legal challenges. These challenges include aspects of data protection and privacy, implementation of regulations in line with international standards, and cross-sector coordination in the face of global dynamics. However, through close collaboration between the government, private sector, and law enforcement agencies, and with the adoption of proactive strategies and proper regulatory compliance, companies can address these challenges more effectively. This multi-stakeholder cooperation is key to strengthening the legal and regulatory framework governing IPR, improving enforcement, and developing best practices in IPR management in the evolving digital age. In addition, a commitment to innovation in security technologies and systems is also essential in ensuring that the digital business environment remains sustainable, secure, and innovative. With a holistic approach involving various stakeholders, Indonesia can build a solid foundation for a vibrant digital business ecosystem that benefits the country's long-term economic growth and technological advancement.

CONCLUSION

Managing intellectual property rights (IPR) within business information systems in Indonesia faces complex legal challenges. Although Law Number 11 of 2008 concerning Electronic Information and Transactions (ITE Law) provides a framework, its implementation often leads to uncertainty and challenges in IPR protection. One of the main challenges is the clarity and legal certainty in the digital environment, as well as consistent law enforcement against IPR violations. Besides legal challenges, other aspects such as data protection and privacy, global dynamics, and the role of courts and law enforcement agencies are crucial in IPR management. Companies need to develop proactive strategies, including clear internal policies and investments in security technology. Cooperation between the government, private sector, and law enforcement agencies is also vital to address challenges collectively. Recommendations stemming from the explanations above include:

1. Enhancing cooperation between the government, law enforcement agencies, and the private sector to improve law enforcement related to IPR within business information systems.
2. Developing clearer and more comprehensive regulations to ensure legal clarity and certainty in IPR protection.
3. Companies should adopt clear internal policies regarding IPR and invest in security technology to protect their intellectual assets.
4. It is important for companies to strengthen cooperation with other stakeholders, including the government, law enforcement agencies, and the business community, to address challenges collectively.
5. The government needs to enhance the judiciary's understanding of IPR issues in the digital environment and ensure law enforcement agencies have sufficient resources and skills to handle IPR violations firmly.

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