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Protection of Intellectual Property Rights for University Students in License Agreements in Indonesia: Encouraging Technological Innovation through Research and Learning Outcomes in Higher Education

Budi Suharto[1]✉, Ucu Cahyana[2], Bedjo Sudjanto[3]

Universitas Negeri Jakarta, Indonesia[1,2,3]

e-mail: b_suharto@yahoo.com*[1]

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ABSTRACT

This study aims to explore the level of students ' understanding of Intellectual Property Rights(IPR), the implementation of IPR protection policies in universities, as well as their impact on technological innovation and learning outcomes. Using a qualitative approach, data was collected through in-depth interviews with students, lecturers, and university managers. The results showed that students ' understanding of IPR, particularly related to licensing agreements, was still limited, although involvement in research projects increased their awareness. Universities already have IPR protection policies, but their implementation still faces obstacles such as complicated regulations, limited resources, and lack of administrative support. IPR protection is proven to encourage students to innovate, increase motivation, and research competence and their legal literacy. The study recommends improving IPR literacy through formal education, the establishment of IPR-specific units at universities, and collaboration between universities, governments, and industry sectors to support the protection of Student Innovation.

INTRODUCTION

Most students in Indonesian universities have a limited understanding of the basic concepts of Intellectual Property Rights (IPR) and licensing agreements. This is due to the lack of formal education in college curricula that specifically addresses the importance of IPR in supporting innovation and protecting the results of their intellectual work. Students are often unaware that their work, such as applications, designs, or technology prototypes, can have significant economic value if properly protected through IPR registration. Education about IPR is very important, especially in the context of technological innovation. In the digital age, students need to understand how to register their work as a patent or copyright to protect their exclusive rights. Knowledge of IPR can also help students prevent the risk of infringement or theft of ideas. Therefore, universities need to improve IPR literacy through training, seminars, or collaboration with related legal institutions. Although most universities in Indonesia have IPR protection policies, the implementation of these policies is often still not optimal. Many universities face

obstacles in terms of funding and administrative support to help students manage their IPR. In addition, the gap between written policy and practice in the field indicates the need for a more structured approach to ensure that every student has equal access to IPR protection. For example, some universities have established special units to support students in the IPR registration process, but these units often lack competent human resources. Therefore, there needs to be greater support, both from the government and the private sector, to strengthen the implementation of IPR protection in universities.

IPR protection has a significant impact on technological innovation created by students. When their work is legally protected, students feel more confident to develop new ideas that have potential commercial value. In addition, licensing agreements provide a clear framework for students to work with industry parties or investors in developing their products. Studies show that students who have an understanding of IPR are more motivated to produce sustainable and innovative work. They also better understand the importance of collaboration with various parties to maximize their innovation potential. IPR protection not only protects the rights of students but also encourages them to become agents of change in the world of technology.

Intellectual Property Rights (IPR) education and protection play a crucial role in fostering innovation and economic growth in higher education institutions. Universities are significant producers of intellectual property, yet there is a lack of understanding and awareness about IPR among students and faculty in Indonesia (Asrori et al., 2023; Keliat & Tanjung, 2022). Implementing IPR as a compulsory subject in universities can help protect innovations, encourage research, and increase awareness of legal protections for academic outputs (Asrori et al., 2023). IPR law serves both protective and economic functions, safeguarding inventors' rights and providing potential income through royalties (Cahyaningsih & Kharisma, 2023). The creation of science and technology developments by university lecturers has the potential for copyright and patent protection, which can enhance global competitiveness when supported by value chains and competitive scope (Sudjana, 2019). Improving IPR education and protection in universities is essential for fostering innovation and economic growth in Indonesia's higher education sector.

This study aims to understand the extent to which students have an understanding of Intellectual Property Rights (IPR) and licensing agreements, as well as evaluate the implementation of IPR protection policies in universities. In addition, this study also aims to identify the impact of IPR protection on student motivation in creating technological innovation and how their involvement in the IPR protection process can improve the quality of learning. This research is expected to provide practical recommendations for universities to strengthen IPR protection systems and encourage collaboration between universities, governments, and industry sectors in supporting student innovation. The research results are also expected to contribute to the development of literature in the field of IPR and higher education, as well as provide input for policies that support the strengthening of IPR protection in Indonesia.

METHODOLOGY

Qualitative research methods focus on a deep understanding of a phenomenon in a specific context. In this case, this study aims to explore the perception of students regarding intellectual property rights (IPR), as well as to explore the policies implemented by universities related to IPR protection. This approach allows researchers to gain a deeper understanding of how students view IPR, whether they are aware of the importance of IPR protection in the context of technological innovation, as well as the barriers they face in accessing such protection. To collect data, qualitative research methods often involve in-depth interviews with students, lecturers, and university managers. This interview provides an opportunity for respondents to express their views freely and in detail, as well as share their experiences in dealing with IPR-related issues. In addition, focus group discussions (FGDs) can also be used to gain more diverse

perspectives from different individuals in a group. In the FGD, participants can interact with each other and give their views on IPR protection policies in universities.

The Data obtained from interviews and FGDs were then analyzed using thematic analysis techniques, which allowed researchers to identify key patterns, emerging themes, and relationships between concepts related to IPR. This process also helps to understand how university policies, students ' understanding of IPR, as well as external factors affect the implementation of IPR protection in universities. In qualitative analysis, researchers not only look for facts or numerical data, but also seek to understand the context, reasons, and backgrounds that shape the views and experiences of respondents.

This qualitative approach has the advantage of gaining a more holistic and contextual insight into the challenges and opportunities in IPR management and protection in universities. It is important to identify the differences between written policies and implementation in the field, as well as to explore the barriers faced by students and institutions in utilizing IPR protection systems. Through this approach, researchers can also provide recommendations that are more based on local contexts and real experiences faced by related stakeholders, so that they can make a real contribution to improving IPR policies and education in universities.

RESULTS AND DISCUSSION

This study involved a variety of respondents with diverse characteristics. The majority of respondents are S1 program students (70%), followed by S2 students (20%), and S3 (10%). Respondents came from various fields of study, such as engineering (35%), science (25%), social (20%), and other fields (20%). The level of student involvement in research or innovation projects also varies; about 40% of respondents are actively involved in research, while 30% have participated in innovation activities, and the rest have no direct experience. The proportion of respondents who have an understanding of intellectual property rights (IPR) is relatively low, with only 25% who understand the basic concepts of IPR and licensing agreements.

The Student Responds To A:

"I actually hear a lot about IPR, especially copyright and patents, but I don't know how to register or protect my work. Universities rarely discuss this, and I have never attended special training related to IPR. If there is a training or seminar, I will definitely be interested because I want to know more about how to protect my innovation."

The Student B:

"In my opinion, IPR is important, especially to protect the work from plagiarism. But the problem is, the registration process is expensive and complicated. If the university can help students, for example with subsidies or free consultations, there will definitely be more students interested in registering their work."

Respondent Lecturer C:

"We at the university already have a policy on IPR protection, but its implementation still faces many obstacles, such as the lack of experts who accompany students. In addition, the budget to support IPR protection is also very limited, making it difficult for us to provide maximum services."

Respondent University Manager D:

"The university has a special unit that handles IPR, but there are still many students who have not taken advantage of this service due to lack of information. We are trying to remedy this by holding seminars and trainings. Hopefully, student literacy about IPR can increase."

Student respondent E (who has registered IPR):

"I once registered my innovation work through the help of the University. At first I was hesitant because the process seemed complicated, but after receiving guidance, I felt more confident. This IPR really helped me in cooperating with the company, because they felt safer working with me."

The results of the interviews showed that most of the students had a limited understanding of the basic concepts of Intellectual Property Rights (IPR), including licensing agreements. Students generally know terms such as copyright or patent, but do not yet understand their protection mechanisms in depth. The main factor that affects the low literacy of IPR is the lack of socialization and formal training organized by the University. On the other hand, the university management acknowledges that although IPR protection policies exist, their implementation is still less than optimal due to limited resources and complex regulations. The main obstacles that students face in protecting their innovative works are the high cost of IPR registration and the lack of easily accessible information about protection procedures. However, students who already have experience in IPR management reveal that the protection provides a sense of security and confidence to publish or develop their innovations, and even establish cooperation with industry parties. Respondents also recommended that universities provide training, establish IPR-specific units, and incorporate IPR-related learning into curricula to improve literacy and support the protection of student work. Overall, this interview highlights the need for collaborative efforts between universities, students, and related parties to improve IPR protection that can encourage innovation and student competitiveness.

Students understanding of Intellectual Property Rights (IPR)

Students level of understanding of IPR protection and licensing agreements varies, depending on their educational background, access to information, and experience in innovation projects. The results showed that only about 30% of students have basic knowledge about IPR, such as registration procedures and intellectual property protection benefits. Most students do not understand how a license agreement can protect their rights while opening up opportunities for commercialization of their work. Factors that affect students ' awareness of the importance of IPR include lack of socialization from the University, lack of access to formal training, and low legal literacy among students. In addition, students involved in research and innovation programs generally have a higher level of awareness because they often get direct guidance from lecturers or mentors. Education and training play an important role in improving students ' understanding of IPR. Universities that actively conduct seminars, workshops, or short courses on intellectual property protection have shown positive results in improving IPR literacy among students. Lecturer involvement and collaboration with industry practitioners also have a significant impact in building a more comprehensive understanding.

Implementation of IPR protection in universities

Some universities in Indonesia already have policies that support the protection of student works through licensing agreements. These policies typically include intellectual property registration procedures and the provision of administrative support to help students with paperwork. However, the implementation of this policy often faces obstacles, such as complex regulations, lack of funding, and limited expertise in the field of IPR. Comparative studies show that IPR protection policies at the University of Indonesia are still lagging behind international best practices. In some foreign universities, there are specialized units that deal with IPR and provide integrated services, such as legal consultation, technical assistance, and access to industrial partners. This practice has not been fully adopted in Indonesia, so students still have difficulty in protecting their innovation works.

Impact of IPR protection on technological innovation

IPR protection is proven to have a significant impact on student motivation to create technological innovation. With the guarantee of protection for the work, students are more motivated to develop creative ideas that have the potential to have commercial value. Licensing agreements also encourage closer collaboration between students, universities and industry partners, thus opening up opportunities for the commercialization of their innovations. For example, some students who successfully protect their innovation works through IPR get support from companies to produce and market the works. This case study shows that IPR protection not only protects the rights of students but also strengthens their position as innovators at national and international levels.

Relationship of IPR protection with learning outcomes

Experience in the IPR protection process has a positive impact on student learning outcomes. Students involved in the registration and management of IPR demonstrate increased competence in various areas, such as legal literacy, negotiation skills, and strategic thinking skills. This engagement also strengthens their research skills, as they are required to understand the technical and legal aspects of the work they produce. The results showed significant differences between students who were involved in IPR protection and those who were not. Students involved generally have a better understanding of the importance of sustainable innovation and its impact on competitiveness in the global marketplace.

Challenges and gaps in IPR protection

The main obstacles faced by students in protecting IPR are the lack of technical guidance, the high cost of registration, and the lack of legal support from the University. On the other hand, universities face challenges in simplifying regulations and providing adequate resources to assist students in the IPR protection process. The gap between government policy and implementation in universities is also one of the important issues. National policies aimed at encouraging innovation are often not supported by infrastructure or internal regulations at the university, so the potential of students in producing innovative works has not been fully realized. The low level of IPR literacy has a negative impact on the competitiveness of Student Innovation at the international level, so collaborative efforts between universities, governments and industry are needed to overcome this gap.

CONCLUSION

The results of this study indicate that the level of student understanding of Intellectual Property Rights (IPR) is still relatively low, especially regarding the concept of protection and licensing agreements, although students involved in innovation projects tend to have better awareness. The implementation of IPR protection in universities in Indonesia still faces various obstacles, such as lack of resources, complex regulations, and lack of administrative support, which hamper the potential of students to protect and develop their innovations. However, IPR protection has proven to have a positive impact on student motivation in creating technological innovation and improving their research competence and legal literacy. To maximize IPR protection, more integrated policies at the university level, collaboration with industry partners, and increased IPR literacy through continuous education and training are needed.

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