



Implementation Framework for Merdeka Belajar Kampus Merdeka (MBKM) in Higher Education Academic Activities



Ruli Supriati¹, Elisa Royani², Triyono³, Dedeh Supriyanti⁴, Nur Azizah⁵
Department of Informasi System^{1,2,5}, Department of Informatics Engineering^{3,4}
University Of Raharja^{1,2,3,4,5}

Modern, Jl. Jenderal Sudirman No.40, RT.002/RW.006, Cikokol, Kec. Tangerang, Kota
Tangerang, Banten 15117

e-mail: ruli@raharja.info¹, elisa.royani@raharja.info², triyono@raharja.info³,
dedeh@raharja.info⁴, Nur.Azizah@raharja.info⁵

Author Notification
15 April 2022
Final Revised
26 April 2022
Published
27 April 2022

To cite this document:

Supriati, R. ., Royani Dewi, E., Triyono, Supriyanti, D. ., & Azizah, N. . (2022).
Implementation Framework for Merdeka Belajar Kampus Merdeka (MBKM) in Higher
Education Academic Activities. IAIC Transactions on Sustainable Digital Innovation (ITSDI),
3(2), 150–161.

Retrieved from <https://doi.org/10.34306/itsdi.v3i2.555>

DOI: <https://doi.org/10.34306/itsdi.v3i2.555>

Abstract

Merdeka Belajar Kampus Merdeka (MBKM) is the policy of the Minister of Education, Culture and Independent Culture aims to encourage students to study various sciences that will help them enter the world of work. The implementation of the MBKM program in extracurricular Education courses must have added value for teachers, students, and education staff. Based on the field survey, this survey leads to a discussion on the level of academic participation in the implementation of MBKM. The purpose of this study is to explain the preparation for implementing the MBKM program and the obstacles. Methods This survey was conducted through a descriptive survey using a survey methodology. The subjects in this study were lecturers, students, and education staff in the PLS research program. Research results from the academic community understand MBKM in the research program environment, the MBKM curriculum document is edited, the research program has courses related to the MBKM program, and entrepreneurial activities support MBKM. The obstacles are limited funds, the academic information system is not optimal, lack of talent, lack of information about the MBKM program.

Keywords: MBKM; Participation; Academic Community.



1. Introduction

Education developed in global education is essentially an education that liberates human beings. Paulo Freire and Ki Hadjar Dewantara are figures who voice and fight for the spirit of global education. But not infrequently the educational practice that is carried out is not in line with the nature of proper education. The world of education must receive more attention so that it can develop in sync with technological developments, student development and their needs. However, some educational forums in Indonesia, especially in rural areas, still use classical concepts or methods that are no longer in sync with developments. Then to quote the opinion. The challenge faced by universities in curriculum development in the Industrial 4.0 era is to produce graduates who have new literacy skills, namely data literacy, technological literacy, and human literacy which leads to the cultivation of noble character. Seeing the reality of what is happening, educational thinkers try to come up with ideas about education for human dignity [1].

Merdeka Belajar Kampus Merdeka, is a policy of the Minister of Education and Culture, which aims to encourage students to master various sciences that are useful for entering the world of work. The Minister of Education and Culture Regulation (Permendikbud) which is the basis for implementing the Merdeka Belajar Kampus Merdeka is Permendikbud No. 3 of 2020 concerning National Standards for Higher Education, Permendikbud No. 4 of 2020 concerning Changes in State Universities to Legal Entity Universities, and Permendikbud No. 5 of 2020 concerning Accreditation of Study Programs and Universities. Independent learning aims to make learning even more meaningful. In general, this program is not to replace an existing program, but aims to develop the nation and empower the people of Indonesia[2]. The independence of learning initiated by the Ministry of Education and Culture offers a simpler learning process. Education at the Merdeka campus provides challenges and opportunities for students to develop their creativity, abilities, character and needs through realities and dynamics such as skill demands, real-world problems, social interaction and collaboration, as well as increasing independence in the search and discovery of knowledge. Self-Management, Performance Requirements, Goals, and Results[3].

"Freedom of Learning " which was proclaimed by the Minister of Education and Culture Nadiem Makarim, understands and changes the perspective of education from the perspective of the philosophy of progressivism[4]. This is because progressivism is a school of educational philosophy that assumes that humans have unique and extraordinary abilities and can overcome various problems that threaten humans themselves. Quoted from Mustaghfiroh, 2020 Progressivism requires the principle of flexibility in order to advance education[5]. For that purpose, according to John Dewey, education must be democratic. In this context, education functions more to provide independence and freedom to students, so that the potential of students can develop properly. From now on, educators are expected to be able to explore the diversity of abilities, intelligence, character, interests and talents of students, because educators must always view their students as a unique and unique community. Therefore, one of the important indicators to assess the success of education is to see the extent to which education can learn the intelligence, interests, and talents of students and develop these potentials to the fullest[6].

The Merdeka Belajar Kampus Merdeka (MBKM) provides opportunities for students to receive a wider learning experience using new competencies through several learning activities, including student exchanges, internships/work practices, facilitating teaching materials, research, independent projects, entrepreneurial activities, humanitarian projects. Teaching assistance in education units, and projects in villages/thematic concrete work courses, and students are also given the freedom to participate in learning activities outside of their study program at the same university using a certain credit score[7]. Citing an article (Yanuarsari et al., 2021) Merdeka Belajar Kampus Merdeka is a policy error to respond to the transformation of learning. Referring to Permendikbud Number three of 2020 concerning National Standards for Higher Education in order to improve the quality of learning and university graduates, Nadiem invites all universities in Indonesia to create strategic plans to prepare student competencies thoroughly to be better prepared to face the challenges of the times[8]. In this case, several higher education management theories, such as the Triple Helix Model (Dzisah & Etzkowitz, nd) have formulated examples of mutual interaction between universities as centers of human competency development, global industries as users of human resources, and governments as policymakers that regulate the work of the other 2 parties[9].

The Extracurricular Education Program of the Faculty of Teacher Training and Education at the Nusantara Islamic State University is a curriculum that is committed to non-formal education. Some of the learning outcomes of students of this study program are:

1. Able to act as educators and managers in the fields of training, community empowerment, and informal and non-formal education.
2. Able to carry out evaluation of training programs, community empowerment, non-formal education and non-formal education based on social and cognitive principles, principles, approaches, strategies and methods.
3. Ability to apply creative and innovative ideas in training, community empowerment, informal and non-formal education programs
4. Ability to act as a facilitator Professionally and responsibly promote, communicate, support, design, develop, and implement training, community empowerment, and informal and informal education programs.
5. Able to master the characteristics of academic citizenship in terms of physical, moral, spiritual, social, cultural, emotional and intellectual.
6. Able to develop learning materials, especially materials based on information and communication technology creatively to realize meaningful, effective and educative learning outside of school.

The learning process with the concept of "freedom of learning" is carried out not only in the classroom but also through observation outside the room. One of the places that you can use to learn is a community environment that has potential as entrepreneurs. The textbook-only learning method has nothing to do with doing the many proficiency assessments that can create goals for the exams in this program. The use of textbooks can be combined with direct learning methods as a form of direct implementation. Learning by Doing or in Indonesian is one of the best ways to get the best learning outcomes. The implementation of the MBKM program in extracurricular education programs must have added value for teachers, students, and teachers involved in its implementation[10].

The learning process with the concept of "free learning" is carried out not only in the classroom but also through observation outside the room. One of the places that you can use to learn is a community environment that has potential as entrepreneurs. The

textbook-only learning method has nothing to do with doing the many skill assessments that can create goals for the exams in this program. The use of textbooks can be combined with direct learning methods as a form of direct implementation. Learning by Doing or Learning in Indonesian is one of the best ways to get the best learning outcomes. The implementation of the MBKM program in extracurricular education programs must have added value for teachers, students, and teachers involved in its implementation [11].

Based on the above background and the results of the field survey, this survey leads to a discussion about the level of involvement of the academic community in the implementation of MBKM. The purpose of this study is to explain the preparation and limitations of the implementation of the MBKM program in order to obtain alternative solutions to problems that arise in supporting the implementation of MBKM activities. Implementing excerpts from the Mazmanian & Sabatier study means understanding what actually happens after the program is validated or formulated. Ripley and Franklin argue that implementation refers to a set of concrete outcomes, a set of activities that follow a statement of intent about program objectives and desired outcomes by government officials. In addition, the notion of journal implementation is the process of implementing policy making and involving parties who implement or implement it from above. This is still (Asia, 2020), essentially "5 right" that must be met for the validity of political implementation :

- 1) The policy itself is exactly
- 2) Implementation.
- 3) Act.
- 4) Correct environment.
- 5) Process process. Participation can be defined as individuals or communities

In participation or participation, individuals or communities. The declaration supports the opinion of Santosa The goal has been to be responsible for people for affected businesses. According to (Hadi, 2015), the principles of direct participation principles of community participation can be directly achieved if the community itself exceeds the share. Process and formulation of results. Community involvement will be the right process with the guarantor.

2. Literature Review

2.1 informatica

Informatica is a science that studies the use of computers to build and analyze big data, namely data and information from computers. This field covers several fields, including information systems, computer science, informatics, computer science, and the application of information in managed information systems[12]. In general, computer science studies the structure, properties, and interactions of various systems used to collect data, process and store the results of data processing, and present it in the form of information. One aspect of computer science is more than just computer information systems, but there is still a lot of unprocessed information that has not been processed by computers. Computer Science has its own basic concepts, theories, and application development. Computer science in general can support and refer to cognitive and social aspects, including the impact and social consequences of information technology. Utilization of information in various fields such as bioinformatics, medical informatics, and library information is another example of the field of informatics[13].

2.2 Concept Theory

Understand the level of research related to the theory and concepts of information systems and information systems. Theory must be solid before proceeding proactively[14]. Understand how information systems are implemented in open source applications. Representative Examples: School Information System, Cash and Warehouse Information System (Sales Center), Hospital Information System, Geographic Information System, Library Information System, Order Information System. Additional Labs: Linux XAMPP installation for Linux operating system installation, server application, LAN topology and configuration, internet connection, and basic Linux commands[15]. You can try them all on the same computer. Purchasing this book will provide you with a wealth of invaluable knowledge, information and information.

2.3 Information System Concept

The basis of the conceptual domain of information systems includes systems and information. To understand the meaning of information systems, the first thing that must be understood is the concept of systems and information[16]. As mentioned earlier, because information is so important to the organization it is often compared to blood flowing through body tissues. System is lost Information will be lost. The state of the system inside the Connection is ultimately called the entropy. This information avoids entropy which is very useful for the system. This is called negative entropy or negentropy. A system is a group of elements that are linked together to achieve a specific goal[17][18]. A system can be part of a larger system. In some categories, the system can also be understood as a means to an end. Information can also be understood as the result of data processing in general. Presenting information in a form that is easy to understand so that it can be useful for the recipient. Information contains a description of the facts used to be considered when making decisions. In the above description, an information system can be defined as an organization that regularly fulfills daily needs to process transactional data. Information systems are used to support the administrative functions of an organization. Information systems are closely related to strategic operations. In an organization, an information system can be one that provides all the useful information at all levels of the organization. In this modern era, the ideal information system must be able to provide valid data that can be accessed when needed.

2.4 Research methods

This study uses a qualitative approach by giving deep meaning to the facts or existing data. This approach is used because the purpose of this research is to explain or explain the facts and figures of the current state and analyze what needs to be done to achieve the desired state in the future. The object adapts to its existing state without being notified of my changes. In this study, the authors explain the effectiveness of gamified learning methods for education management in the current Industry 4.0 era[19]. The analysis of this research was conducted using SWOT analysis, where it shows the company's performance by determining the combination of internal and external factors. Compare the SWOT analysis between internal factors, namely strengths and weaknesses. With external postmen, namely opportunities (opportunity), and threats (threat). Internal elements are included in a matrix called the IFAS (Internal Factors Strategic Analysis) matrix. External factors are included in a matrix called the external factor matrix or EFAS (External Strategic Analysis Factors)[20]. After the internal and external strategic factor matrices are complete, the results are included in a qualitative model, namely : SWOT matrix to build a competitive business strategy.

2.5 SWOT analysis

SWOT analysis (SWOT analysis), which includes efforts to determine Strengths, Weaknesses, Opportunities and Threats to determine company performance [21]. Information on possible external opportunities and threats is obtained from various sources, including: customers, government records, suppliers, banks, partners of other companies. Many companies use the services of organizations to scan newspaper snippets, internet research, and analysis of relevant domestic and global trends (Richard L. Daft 2010:253). Furthermore, Fredi Rangkuti (2004:18) explains that SWOT analysis is a systematic identification of various factors to develop a company's strategy. This analysis is based on a logic that may maximize strengths and opportunities, but at the same time minimize weaknesses and threats. The strategic decision recovery process is always associated with developing the company's mission, goals, strategies and policies[22]. So, the strategic planner must analyze the strategic elements of the company (strengths, weaknesses, opportunities and threats) in the current conditions

2.6 SWOT Elements

SWOT Elements Strengths and Weaknesses, Opportunities, Threats

- 1) External and Internal Factors: Theo (irham fahmi, 2013: 260) for a deeper SWOT analysis, you should look at external and internal factors that are an important part of a SWOT analysis, in particular:
- 2) External factors: These external factors affect the formation of opportunities and threats (O and T). Where is this relevant factor? with conditions that occur outside the Company that affect business decision making. The coefficient covers the industrial environment and the macro business environment, economy, politics, law, technology, population, and socio-culture.
- 3) Internal factors: These internal factors affect the strengths and weaknesses of the training (S and W). Where is this relevant factor? with the conditions that occur in the Same as any company affect the formation of business decision making. This inner element includes all types of management functions: marketing, finance, operations, human resources, research and development, cultural systems and enterprise information management (corporate culture).

Strengths	Weakness
<ol style="list-style-type: none"> 1. Raharja University has been based on information technology 2. Using iDu 2.0 or email Rinfor 3. iDu 2.0 is an effective, efficient and flexible online learning media. 4. Can view or reread material from all course 5. The theory that can be accessed is very complete 	<ol style="list-style-type: none"> 1. The level of information delivery to students who are not up to date regarding campus academic activities and assignments from a course 2. Must be connected to the internet network 3. The utilization rate of iDu 2.0 is still not optimal 4. When opening the material for a course, loading often occurs which takes time
Opportunity	Threat
<ol style="list-style-type: none"> 1. iDu 2.0 is used as an iLearning learning media environment at Raharja University 2. Make it easy for students to complete lectures anytime, anywhere using a laptop or cellphone 3. Can open and repeat material at any time 4. Implement an interesting and fun learning 	<ol style="list-style-type: none"> 1. There is a system update that results in system maintenance so that it can interfere with the iLearning learning process 2. Technological developments are increasingly rapidly 3. Areas and environments that are not covered by networking

In the problems that have been stated above, how to increase students' learning motivation in the learning process. Because the main purpose of higher education is to add or develop previously acquired knowledge and to develop students' areas of interest. However, due to the declining interest and motivation of students to learn, the main goal of higher education is slowly disappearing. Which is an additional element with the aim of increasing interest in learning and the enthusiasm of students in lectures and doing assignments. With the existence of iDu 2.0, which uses a system that will greatly facilitate students in accessing all course material, every time they want to reread all the material or do assignments when outside the campus environment, they can go through iDu 2.0.

3. Results and Discussion

3.1 Readiness of the Academic Community in the Implementation of MBKM

Sources of information related to the implementation of MBKM implementation policies are known by teachers who teach educational programs outside of school through offline/online socialization activities organized by the Ministry of Education and Culture Performance, as well as offline/online outreach activities. Organized by the university, others received information through the Ministry of Education and Culture's online channels, including websites and social media, and other information was obtained through the University's school online channels[23]. Most of the students received information about MBKM policies from the Ministry of Education and Culture's online channel in the form of website access, social media related to the implementation of MBKM with a respondent rate of 46.03%, then students obtained information related to MBKM activities through offline/online social activities organized by universities up to 14 ,28% of the amount asked. In addition, higher education online channels in the form of websites and social networks provide sufficient information for students to access the MBKM program. Offline/online social activities organized by the Ministry of Education and Culture also help students access useful information. What is more interesting is that the mass media also has an influence in disseminating information related to MBKM policies[24]. And finally students can access information related to MBKM policies through community communication channels, for example the alumni community, etc. This figure is 6.34 from the results of the survey approaching students .

In addition, education staff get information about the policies of Merdeka Belajar Kampus Merdeka (MBKM) obtained through the alumni community communication channel[25]. Preparation of study programs in the implementation of MBKM policies from the preparation of the MBKM curriculum, which is adjusted to the success of postgraduate learning, so as to facilitate student activities to meet their knowledge and skill needs. In preparing postgraduate learning outcomes, the study program involves professors and includes available MBKM program guides online at universities into their research in writing (Ardini et al., 2021) Pujiono (2020) which contains activities that aim to achieve results according to goals. The activity plan includes four activities, including: 1. Formulation of policies at the tertiary level related to the implementation of the MBKM curriculum collaboration program. 2. Formulation of policies/guidelines for the implementation of the curriculum MBKM cooperation program at the tertiary level of the Study Program. 3. Arrangement of curricular collaboration between study programs and partners/other stakeholders in supporting the implementation of the MBKM curriculum. 4. Making standard operating procedures for students, teachers, field supervisors and supervisors in the MBKM program. Another study on the MBKM curriculum carried out by Ariay (2020) entitled to strengthen the Merdeka Merdeka campus curriculum Public Administration FISIP Andalas University, has led to activities carried out in the independence year of the Merdeka law teacher, including these, including: 1 preparation

of the vision and mission of the Administration Study Program Public: Vision: "To be in the development of Tri Dharma universities in the development of outstanding government and in 2024" Mission: A. Organize undergraduate training to produce graduates of public administration of Public Administration and dignity (Ardini et al., 2021). The curriculum used in the Extracurricular Education study program meets the needs of the graduate program, which includes courses designed to explore the skills of community students. One of the supporting courses for the MBKM program is Entrepreneurship, Community Empowerment Management, Management Training, Literacy Management, Real Work Lectures, Internships/Internships, Internships, Thesis Project Research/Research. which is focused on the MBKM program, Entrepreneurship Lecture Activities are carried out by students in the field to participate in the development and improvement of the quality of human resources in the field of special expertise, as well as improving the community's economy.

Rahmawanti & Nurzaelani, (2022) revealed that according to Research on the Impact of MBKM Implementation on students' soft skills & hard skills, it can be concluded that the application of MBKM events has an impact on: (1) Increasing several soft skills such as communication skills, problem solving skills, creativity, and conflict resolution skills. (2) The implementation of the MBKM Program has an impact on improving several hard skills such as empathy, social skills, ability to use technology, creative & innovative thinking, & writing skills & research. (3) Between soft skills and hard skills which are more affected according to the MBKM application are hard skills, namely creativity. The development of educational science is currently in a very inconsistent situation using the previous period, the presence of technology and facts at this time has developed better as a consequently can support the development of education using either. The above research findings holistically discuss the implementation of independent learning in independent campuses which are carried out in out-of-school education study programs that explore the views of the academic community of out-of-school education study programs on the MBKM program. The MBKM implemented, as a result, can be used as a benchmark for future MBKM program applications. And also this effort to improve teaching materials uses development research with the Strength, Weakness, Opportunities, Threats (SWOT) method. Lack of available teaching materials and information about online lectures that have not gone well, in reminding announcements or often referred to as information about lectures and campuses, even very important information, such as reminding students to arrange lecture schedules to be carried out so that not a few students are missed. In the canceling process, add class schedules, even information about events on campus such as iLearning iDU, national and international seminars and others. Many students do not know sometimes important information is not sent via email to every iLearning student. Examination of student, lecturer and class assignments at iDu (iLearning Education) has not gone well, considering that it has not been effective to check emails that are carried out every month and for iDu (iLearning Education) classes. Improving the lecture system to run well and optimally in checking classes which include administrative readiness, for example, such as the SAP and Syllabus contained in learning modules, lessons or teaching materials modules (meetings), assignments (assignments) such as QUIZ, independent assignments, UTS and UAS and checking the class mailing list to find out how much discussion students and lecturers had in discussions about learning. To deal with the problems described above, it is necessary to implement a process system that is considered capable of supporting the learning contained in the iDu (iLearning Education) classes. iDu (iLearning Education) created a gamification method to support the learning process contained in iLearning. This method is a system built to meet the learning needs of iDu (iLearning Education) from one user and online at any time, so that students can take advantage of the gamification method to earn additional points, as well as so that teaching and learning activities can run effectively and efficiently anywhere

and anytime. Without having to meet face-to-face with the lecturer, the student can do the assignment and get additional grades according to the due date given by the lecturer.

4. Conclusion

Merdeka Belajar Kampus Merdeka is one of the policies to deal with learning care. Refers to Permendikbud number 3 of 2020 on National Education Standards to improve the quality of learning and higher education graduates. Political goals apart from the Merdeka campus are to increase skill levels, both sweet and difficult skills, to be more prepared and relevant to meet the needs of the times, prepare graduates as heads before the nation and superior personalities, experiential learning programs with Flexible walks will be able to facilitate students to develop their potential according to their passions and talents. The preparation of the education curriculum outside of school is sufficient to support the implementation of MBKM. The elements that support this preparation include the academic community who understand MBKM policies in the program environment. The preparation of the MBKM program document that has been approved by the Nusantara Islam University program has courses related to the MBKM program. Entrepreneurial activities that have been carried out so far to develop students' non-academic skills as part of community empowerment efforts. Constraints faced in the implementation of the MBKM program in the curricular environment include limited funds, most of which come from students, the academic information system to facilitate activities is not optimal, the capacity of human resources available in the lecture environment is inadequate. Lack of technical information on the implementation of the MBKM program. And carry out learning the current iLearning system is very good, it can facilitate the work of lecturers to carry out the material to be delivered by students, with iLearning in the teaching and learning process it does not have to be face-to-face with the lecturer, because it is connected to the internet using a device. Such as iPad, Laptop, PC and others, so that students can carry out the learning process well. The effectiveness of the implementation of Gamification in the iDu (iLearning Education) class to increase student motivation to learn optimally so that they are not bored in the learning process and are more enthusiastic about doing the tasks that have been given by the lecturer. Students can also develop a mindset as well as creativity and add insight, knowledge in all fields that are taught while in lectures. In addition, the existence of Gamification is considered to be able to help students to get additional points in the form of SC (Special Contribution) so that students have the motivation to be more active in doing assignments and can maximize learning and make the teaching and learning process more fun with learning in the form of games.

REFERENSI

- [1] R. E. Santoso, F. P. Oganda, E. P. Harahap, and N. I. Permadi, "Pemanfaatan Penggunaan Hyperlocal Marketing bagi Startup Bidang Kuliner di Tangerang," *ADI Bisnis Digit. Interdisiplin J.*, vol. 2, no. 2, pp. 60–65, 2021.
- [2] Q. Aini, N. Lutfiani, and M. S. Zahran, "Analisis Gamifikasi iLearning Berbasis Teknologi Blockchain," *ADI Bisnis Digit. Interdisiplin J.*, vol. 2, no. 1, pp. 79–85, 2021.
- [3] S. Watini and V. T. Devana, "Teori Kuantum Baru yang Sesuai Sains dan Teknologi dengan Kaidah Ilmu Islam," *ADI Bisnis Digit. Interdisiplin J.*, vol. 2, no. 1 Juni, pp. 89–93, 2021.
- [4] T. Harriguna and T. Wahyuningsih, "Kemajuan Teknologi Modern untuk Kemanusiaan dan Memastikan Desain dengan Memanfaatkan Sumber Tradisional," *ADI Bisnis Digit. Interdisiplin J.*, vol. 2, no. 1 Juni, pp. 65–78, 2021.

-
- [5] F. P. Oganda, M. Hardini, and T. Ramadhan, "Pengaruh Penggunaan kontrak cerdas pada Cyberpreneurship Sebagai Media Pemasaran dalam Dunia Bisnis," *ADI Bisnis Digit. Interdisiplin J.*, vol. 2, no. 1 Juni, pp. 55–64, 2021.
- [6] P. A. Sunarya, Q. Aini, A. S. Bein, and P. Nursaputri, "The Implementation Of Viewboard Of The Head Of Department As A Media For Student Information Is Worth Doing Final Research," *ITSDI J. Ed. Vol. 1 No. 1 Oct. 2019*, p. 18, 2019.
- [7] K. Kis, C. Kirana, P. Romadiana, B. Wijaya, and A. M. Raya, "Peningkatan Sumber Daya Manusia Melalui Pembuatan Video Pembelajaran Bagi Guru-Guru," *ADI Pengabd. Kpd. Masy.*, vol. 1, no. 2, pp. 1–7, 2021.
- [8] M. Nurchaerani and F. Nursyamsi, "Upaya Meningkatkan Minat Belajar di Masa Pandemi Melalui Pelatihan Bahasa Inggris Secara Daring," *ADI Pengabd. Kpd. Masy.*, vol. 2, no. 1, pp. 1–7, 2021.
- [9] R. Widayanti, U. Rahardja, F. P. Oganda, M. Hardini, and V. T. Devana, "Students Formative Assessment Framework (Faus) Using the Blockchain," in *2021 3rd International Conference on Cybernetics and Intelligent System (ICORIS)*, 2021, pp. 1–6.
- [10] T. Hariguna, D. Supriyanti, M. Yusup, and E. A. Nabila, "Transformasi Hukum Islam dan Dampak Sosial bagi Generasi Z," *Alph. J. Wawasan Agama Risal. Islam. Teknol. dan Sos.*, vol. 1, no. 1, pp. 75–84, 2021.
- [11] U. Rahardja, Q. Aini, F. P. Oganda, and V. T. Devana, "Secure Framework Based on Blockchain for E-Learning During COVID-19," in *2021 9th International Conference on Cyber and IT Service Management (CITSM)*, 2021, pp. 1–7.
- [12] Y. Durachman, A. S. Bein, E. P. Harahap, T. Ramadhan, and F. P. Oganda, "Technological and Islamic environments: Selection from Literature Review Resources," *Int. J. Cyber IT Serv. Manag.*, vol. 1, no. 1, pp. 37–47, 2021.
- [13] F. Agustin, F. P. Oganda, N. Lutfiani, and E. P. Harahap, "Manajemen Pembelajaran Daring Menggunakan Education Smart Courses," *Technomedia J.*, vol. 5, no. 1 Agustus, pp. 40–53, 2020.
- [14] U. Rahardja, T. Hariguna, and Q. Aini, "Understanding the impact of determinants in game learning acceptance: An empirical study," *Int. J. Educ. Pract.*, vol. 7, no. 3, pp. 136–145, 2019, doi: 10.18488/journal.61.2019.73.136.145.
- [15] B. Mardisentosa, U. Rahardja, K. Zelina, F. P. Oganda, and M. Hardini, "Sustainable Learning Micro-Credential using Blockchain for Student Achievement Records," in *2021 Sixth International Conference on Informatics and Computing (ICIC)*, 2021, pp. 1–6.
- [16] S. Purnama, U. Rahardja, Q. Aini, A. Khoirunisa, and R. A. Toyibah, "Approaching The Anonymous Deployment Of Blockchain-Based Fair Advertising On Vehicle Networks," in *2021 3rd International Conference on Cybernetics and Intelligent System (ICORIS)*, 2021, pp. 1–6.
- [17] P. Edastama, N. Lutfiani, U. Rahardja, S. Avionita, and P. A. Sunarya, "Overview of Business Innovation and Research Probability on Blockchain and Introduction to its Exclusive Version," in *2021 3rd International Conference on Cybernetics and Intelligent System (ICORIS)*, 2021, pp. 1–7.
- [18] U. Rahardja, I. J. Dewanto, A. Djajadi, A. P. Candra, and M. Hardini, "Analysis of Covid 19 Data in Indonesia Using Supervised Emerging Patterns," *APTISI Trans. Manag.*, vol. 6, no. 1, pp. 91–101, 2022.
- [19] P. Maresova *et al.*, "Consequences of industry 4.0 in business and economics," *Economies*, vol. 6, no. 3, p. 46, 2018.
- [20] S. Mishra and A. R. Tripathi, "Platform business model on state-of-the-art business learning use case," *Int. J. Financ. Eng.*, vol. 7, no. 02, p. 2050015, 2020.
- [21] O. Karyono and K. Agustina, "Determining the Priority Strategy in the Implementation of E-Government Through Swot Analysis Model," *Budapest Int. Res. Critics Institute-Journal Vol.*, vol. 2, no. 2, pp. 66–74, 2019.
- [22] P. Brown, N. Bocken, and R. Balkenende, "Why do companies pursue collaborative

- circular oriented innovation?," *Sustainability*, vol. 11, no. 3, p. 635, 2019.
- [23] R. Huang, A. Tlili, T.-W. Chang, X. Zhang, F. Nascimbeni, and D. Burgos, "Disrupted classes, undisrupted learning during COVID-19 outbreak in China: application of open educational practices and resources," *Smart Learn. Environ.*, vol. 7, no. 1, pp. 1–15, 2020.
- [24] C. M. Yudhawasthi and L. Christiani, "Challenges of higher educational documentary institutions in supporting Merdeka Belajar Kampus Merdeka Program," *Khazanah al Hikmah J. Ilmu Perpust. Dan Kearsipan*, vol. 9, no. 2, 2021.
- [25] M. Sa'diyah, I. Nurhayati, E. Endri, D. Supriadi, and Y. Afrianto, "The Implementation of Independent Learning Independent Campus: The New Paradigm of Education in Indonesia," 2022.