

Education Policy in the Era of Society 5.0: How is the Transformation of Higher Education Policy in Indonesia ?

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Abstract

This study aims to analyze whether or not there is a revitalization of the role and function of the Kampus Merdeka as an effort to prepare the community for the era of Society 5.0. This study uses qualitative research with a normative analysis approach about the best policies that must be carried out to implement the MBKM Program. The type of data in this study is secondary data. Data analysis used descriptive qualitative techniques. Based on the results of the research analysis, it can be concluded that the revitalization of the role and function of the Kampus Merdeka to face the era of society 5.0 needs to be carried out in four main aspects, namely Infrastructure, Human Resources, Synchronization of programs in building partnerships, and Application of Technology. So the critical step that the government must take is to take several necessary steps to overcome this, namely competency-based education, Utilization of IoT, Utilization of Virtual Augmented Reality, Utilization of Artificial Intelligence, Formation of Leadership Character, and Building Partnership Skills.

Keywords: Transformation, Society Era 5.0, Revitalization, Education, Kampus Merdeka.

A. INTRODUCTION

Currently, the globe is undergoing an age of disruption and globalization in numerous spheres of life. This is characterised by greater connectedness, interaction, and development of digital, intelligent, artificial, and virtual systems (Sudibjo et al., 2019; Fukuyama, 2018). (Sudibjo et al., 2019; Fukuyama, 2018). With the increasingly converging borders between humans, robots, and other resources, information and communication technologies undoubtedly touch different sectors of life (Barret et al., 2021). One of them is impacting the world of education in Indonesia.

It is necessary that every human being in society experience many changes. These changes can take place quickly or slowly and require a long process (Wang et al., 2016). Therefore, social change is a continuous process. The study of this process has both historical and evolutionary perspectives (Symaco et al., 2019). Changes in today's society can occur continuously but slowly without being planned, such as social changes caused by changes in technology or globalization; besides, some chances arise because they are designed (Nagy et al., 2020; Fukuda, 2020).

Social change can be seen from the point of view of education. When education is still traditional, it views educational institutions

as one of the structures and cultures in a society (Foresti et al., 2020; Gladden, 2019). Informal education, students are placed as objects in social change; therefore, educational institutions that cannot keep up with social change can lose their function as a place to transfer values that live in society and culture, many possibilities will be abandoned by society because it cannot provide answers to the demands of the growing era (Aditya et al., 2022; Munastiwi & Puryono, 2021). While modern education considers that an individual can only develop in his interaction with the socio-cultural life order he lives. This means that modern education considers students not only as objects of social change but also as actors of social change, where there is an acknowledgment of an active participatory role in the process of social change (Hanafi et al., 2021; Iivari et al., 2020).

If you look at statistics, data published by the World Population Review in 2021 states that in terms of education level, Indonesia is ranked 54th out of 78 countries that are the object of research. Another research issued by the Global Talent Competitiveness Index (GTCI) ranks a country's competitiveness according to its human resource skills. Several metrics are used to evaluate this index, including education and per capita income, computer technology infrastructure,

information, gender, tolerance level, environment, to political stability

(Werdiningsih et al., 2022). GTCI data in 2021 is presented as follows:

Table 1. Global Talent Competitiveness Index 2021 Rankings

Country	Score	Overall Rank	Income Group
Switzerland	82.09	1	High Income
Singapore	79.38	2	High Income
USA	78.81	3	High Income
Denmark	77.98	4	High Income
Sweden	77.98	5	High Income
Netherland	77.31	6	High Income
Finland	77.07	7	High Income
Luxembourg	76.96	8	High Income
Norway	75.84	9	High Income
Iceland	75.21	10	High Income
Australia	75.06	11	High Income
Indonesia	42.09	80	Lower-Middle Income

Source: GTCI (2021)

Several factors have contributed to Indonesia's low ranking in education. Based on data published by GTCI, Singapore has the most extended average length of schooling among other ASEAN countries, which is 11.5 years. In comparison, Malaysia has an average size of education of 10.2 years, and the Philippines is in third place with an average length of stay in the community school of 9.3 years. Meanwhile, Indonesia has an average of 8 years of schooling; behind Indonesia, there are Thailand (7.6 years), Laos (5.2 years), Myanmar (4.9 years), and finally Cambodia (4.8 years). Based on the data in table 1, there is a strong correlation between the length of the school taken and the talent quality of community resources in a country.

Indonesia ranked 80 in 2021; this shows that the competitiveness of human resources is still relatively low; this, of course, must receive a severe response from officeholders and the community in general and focus attention on implementing policies in the education sector itself, in a state of emergency. A world that is undergoing speedy changes requires effective responses and policies (Wardoyo et al., 2021; Putra et al., 2021).

No one can resist change in the modern day, which is why appropriate human resources (HR) are required to be adaptable and competitive on a global scale. Improving the quality of human resources via education, beginning with basic, secondary, and university education, is critical to surviving in the disruptive period (Christwardana et al., 2022; Sihombing et al., 2021). Advances in science

and technology are accompanied by an increase in the fast current of disturbance in the world, which impacts the world of education. Technology is developing very rapidly; the government is also making trouble and finally changing the education curriculum in Indonesia, which is adapted to the era of disruption (Jackson, 2019). The disruption development also demands that schools or universities be busier than in the previous period (Hermayawati, 2022; Rosmayani, 2022). The school itself has started to disrupt the internal education system.

The era of disruption has had a vast impact, including in education. Competence in this era of trouble is a unified whole with a very new way of learning and teaching and has a student-centered center, using technology with an unlimited reach (Jackson, 2019; Avelar, 2019). This condition allows students to gain knowledge and skills more thoroughly and efficiently and can also be a reference for developing learning and teaching traditions today (Guan et al., 2020; Santaolalla et al., 2020). According to the Indonesian Ministry of Education and Culture's study, the following traits or indications can be observed: 1) Information that is accessible from anywhere and at any time; 2) Computing that is becoming quicker; 3) Automation that takes the place of regular work; and 4) Communication that is accessible from anywhere and at any time.

To better educate students to deal with changes in society, culture, the workplace, and rapid technology advancements, students' competencies must be enhanced. It is connected

to and adapts to the industry, the workplace, and an ever-changing future (de Souza et al., 2019; Annan & Molinari, 2017). Universities must be able to create and implement creative learning procedures that assist students in achieving optimum and consistent learning outcomes across a range of attitudes, knowledge, and skills domains.

The curriculum includes a variety of activities other than on-campus education, such as internships/industrial work practices or other workplaces, charity projects in villages, education in educational institutions, participation in student exchanges, conducting research, and conducting entrepreneurial activities, as well as conducting independent research/projects and implementing humanitarian programs. All of these exercises should be conducted under the supervision of an instructor. Independent higher education institutions are intended to enhance students' overall skills, be proactive, and give contextualized field experiences, hence providing new career chances.

This is supported by several previous studies, such as the research conducted by Sulistyani (2022), which found that the campus where the research was conducted already has a program similar to the Merdeka Belajar-Kampus Merdeka (hereinafter called MBKM), which includes several activities such as teaching assistance, entrepreneurial activities, building villages, student exchanges, humanitarian activities, independent studies, and research. In other words, the MBKM program is considered less effective and has no significant impact.

These results are also supported by another research conducted by Ratna Puspitasari (2022); in her research, she stated that there are still difficulties in implementing the Kampus Merdeka program, which is caused by many factors such as the lack of quality human resources, the problem of establishing partnerships with related companies. The lack of compatibility between lectures and activities outside the study program and the complexity of the collaboration process with outside parties.

Based on this description, the authors are interested in asking the question of what is the actual direction of the independent campus policy that is intended for all state universities in Indonesia and whether revitalization is needed in reviewing and relocating the vitality

of the program in the era of disruption as a form of system transformation in higher education in Indonesia.

B. METHOD

This study uses qualitative research with a normative analysis approach about the best policies that must be carried out to implement the MBKM Program. The type of data in this study is secondary data. Data analysis used descriptive qualitative techniques. The data analysis in this study begins by analyzing the educational paradigm implemented through the Kampus Merdeka curriculum. The research is continued by examining the relevance of the Kampus Merdeka Curriculum in preparing the community to face the era of society 5.0 and continued by analyzing the readiness of Indonesian education in meeting the age of society 5.0.

C. RESULT AND DISCUSSION

1. Analysis of Educational Paradigm in the Perspective of the Kampus Merdeka Curriculum

Education in Indonesia has continued to evolve in lockstep with the advancement of civilisation. The conditions created by the society 5.0 period have had a considerable influence on how education is implemented. The emergence of society 5.0 may be seen in the shift in societal functions toward the use of information technology in many aspects of life, including education (Nousheen et al., 2020). The use of online-based learning and learning media is one of the features that emerge in the era of society 5.0 education and may help education keep its current function. Education is one of the social tasks that are inextricably linked to civilisation, even in the period of society 5.0.

Additionally, shifting expectations have compelled the sector to seek trained workers on a need-to-know basis. Numerous job kinds will be eliminated as a result of decreased client demand or as a result of technological advancements. This ushered in the fourth industrial revolution, commonly known as the Disruption age. Along with the abolition of one type of work, new types of work were created in response to market demands, which indirectly increased employment. This scenario has a significant impact on the educational paradigm shift.

Industrial revolution 4.0 will compel educational institutions to alter their present curricula to meet their current and future demands. Additionally, this adjustment will result in labor absorption that is market-driven, while on the one side (Goralski & Tan, 2020). The challenge is determining how adaptable educational institutions, particularly those at the higher education level, are to adapt and how prepared higher education is to serve as a mouthpiece for developing individuals who contribute to the industrial revolution 4.0's widespread benefits, particularly for those living below the poverty line, because the primary threat in this era is individuals' inability to keep up with technological advancements, leaving them behind and widening the poverty gap.

An essential point that the government must apply as the regulator and higher education institutions is that the executor must go hand in hand. One of the obstacles that hinder the current scientific development for students who are young residents is that there must be scientific linearity taken from the strata one level to doctoral education. This point of view is changing and gradually being eliminated with the paradigm built by the Kampus Merdeka Curriculum because, basically, in this era, one scientific field cannot stand-alone youth who receive higher education must be able to conduct research in a multidisciplinary manner so that it will produce innovations that have a broader scale by releasing barriers such as scientific linearity, especially in this era where almost all aspects of life intersect with technology. Furthermore, the Indonesian minister of research and higher education stated that "for example, when it comes to the economy, it is related to digital, it's a technical field, we can't be separated anymore later. For example, logistics management, supply chain management, intelligent data, and intelligent technology must be done with the development of science.

In an era known as the disruption that directly touches the practical aspects of education, education is required to build professional, superior, and competitive resources. In the era of change, competition is not between institutions but competition with individuals across countries. In other words, universities must be able to improve quality to produce a generation that can survive in competition or the increasingly high flow of

technology. Simultaneously, learning innovation 4.0 places a premium on educators' understanding of learning approaches, their implementation in the classroom, and their own growth as learners. Innovative learning makes use of all available resources, including the capability of technology and its use in education.

2. The Relevance of the Kampus Merdeka in Facing the Era of Society 5.0

The term "society 5.0" refers to a notion coined by the Japanese government. Society 5.0 is not just about manufacturing elements; it also addresses social issues through the merging of real and virtual places. Society 5.0 has altered the idea of big data technology as gathered by the Internet of things (IoT), and Artificial Intellegent (AI).

Indonesian education is still not prepared to face the industrial revolution 4.0, which uses the Internet and computers to aid the teaching and learning process. Previously, learning had to occur directly between professors and students; currently, in the industrial revolution's 4.0 age, learning may occur via online classes delivered via social media or other mediums that facilitate online learning. In the industrial revolution 4.0 age, educators can use a hybrid/blended learning strategy. Blended learning is a style of instruction that mixes face-to-face instruction in the classroom with online instruction. It is commonly used in today's higher education institutions.

And at the same time, the world is moving into a new era in various aspects, including in education. Society 5.0 is the concept of a new order of life for the community. Through the idea of society 5.0, people's lives are expected to be more comfortable and sustainable. People will be provided with products and services in quantity and at the time required. As a preventive measure to deal with the turmoil of disruption as a result of the industrial revolution which continues to minimize the role of humans and will at least eliminate human identity itself, the concept of Smart Society 5.0 emerged (Dwivedi et al., 2020; Santos & Marques, 2019).

The MBKM program is a new policy established by universities in response to a directive from the Minister of Education and Culture. The MBKM policy emphasizes the

following points: (1) establishing a new study program in accordance with Permendikbud No. 7 of 2020 on the Establishment, Amendment, and Dissolution of State Universities, and the Establishment, Amendment, and Revocation of Permits for Private Universities, as well as Permendikbud No. 5 of 2020 on Accreditation of Study Programs and Universities; and (2) higher education accreditation system in accordance with Permendikbud No. 5 of 2020 on Accreditation of Study Program One of the cornerstones to executing the MBKM Policy successfully is to increase the autonomy and flexibility of the learning process in higher education.

The MBKM program places humans (especially students) as its main component. The era of Society 5.0 requires three primary abilities that must be mastered by various elements of society, the keywords of these three abilities are creativity, critical thinking, communication, and collaboration. The MBKM program requires students to have basic skills in the field of digital technology and a creative mindset because it is a prerequisite for competence for society in the twenty-first century that focuses on several things such as problem-solving, collaboration, critical thinking, and working full of creativity.

MBKM emphasizes that education plays an essential role in creating an intelligent, humane society, forming and improving the quality of human resources, and having character. In facing future conditions, it is necessary to change the vision and paradigm in education, including minimizing the role of learning material providers, lecturers, and educators who can be an inspiration for the growth of student creativity. Lecturers act as facilitators, stimulants, tutors, and learners. This program will create quality education for the wider community, which is pursued through improving services and immediate access, which is carried out to fulfill and improve infrastructure and technology platforms that are expected to shape the future class.

Furthermore, MBKM must also be interpreted as a strategic policy by both the government and the private sector in supporting independent learning according to the needs of organizations or campuses and a way for effective and accountable education funding in the provision of education. The relevance of a separate campus in facing the era of society 5.0 is contained in two main pillars, namely

adaptation, and competence. The Transformation in question is because MBKM is quite good at understanding generational development. While emphasizing competence is a life skill at age 21 known as 4C (Creativity, Critical Thinking, Communication, Collaboration), which is expected to be creative, independent, exemplary, and inspiring students.

The community will face numerous challenges and entirely new social problems in society 5.0, which will require the community to leverage numerous innovations born during the Industrial Revolution 4.0, such as the Internet of Things, Artificial Intelligence, Big Data, and robots, in order to improve the quality of life of individuals, in other words, an anthros-centered society with a technology-based foundation. Additionally, the government is attempting to minimize the national unemployment rate by synchronizing education with the world of work and industry, ensuring that university graduates have areas of specialty and are prepared to operate in the world of labor.

This is accomplished in MBKM by meeting six fundamental literacy needs for each student: 1) data literacy, which is defined as the ability to read, analyze, and use information in the digital world; 2) technology literacy, which is defined as the competence to understand how machines work and technology applications such as coding, artificial intelligence, machine learning, and biotechnology; and 3) human literacy, which encompasses humanities, communication, and design. Additionally, the government is attempting to minimize the national unemployment rate by synchronizing education with the world of work and industry, ensuring that university graduates have areas of specialty and are prepared to operate in the world of labor.

In contrast to the 4.0 industrial revolution, which placed a premium on business over society, the 5.0 era of technology creates new value by bridging social, age, gender, and language divides and providing products and services tailored to diverse individual needs and the needs of a large number of people. The fundamental idea of society 5.0 is a balance between business and economic development and the social environment (Leal et al., 2018). With the advancement of technology in the period of society 5.0, the industrial revolution's

difficulties have been resolved. 4.0 (lower sociability between communities, less employment, and other industrialization-related effects) shall be eliminated in order to achieve maximum integration.

The utilization of technology is a tool to celebrate personal and business life and be able to make life popular among people. An example of society 5.0 in the social sector is the use of AI to analyze big data from various information such as artificial satellites, ground weather radar, observation of disaster areas with drones, damage information from building sensors, and damage information from building sensors.

3. Analysis of Indonesia's Education Readiness in Facing the Era of Society 5.0

Faced with an era of rapid disruption in all spheres of life, some of the 21st century talents that must be had include leadership, digital literacy, communication, emotional intelligence, entrepreneurship, global citizenship, problem-solving, and teamwork. Numerous indices of Indonesia's educational preparation may be found in the following table:

Table 2. Indicators of readiness to face the era of society 5.0 in education

Indicator	Explanation
Infrastructure	The government must work to boost development distribution and to extend internet access to all regions of Indonesia. As of now, not all locations in Indonesia can be connected to the internet.
Human Resources	Teachers must have digital abilities and the ability to think creatively and dynamically in the classroom.
Synchronization	The government must be able to coordinate education and industry so that graduates from colleges and schools can work in their professions and meet the sector's criteria, thereby reducing unemployment in Indonesia.
Technology Application	Applying technology as a tool for teaching and learning activities

Based on these four indicators, Indonesia is still considered immature in implementing MBKM as an effort by the government to prepare people's conditions to face the era of society 5.0 because these four indicators have not been fulfilled optimally. Among these problems are related to the objectives of education, policies that are still partial, human resources, and so on.

In terms of human resources, namely the preparation of educators (lecturers) as the spearhead, it takes a long time. The superior HR development program will not run without the driving human resources (lecturers); the Superior HR development program will not run. Thus, special preparations should be made to print driving lecturers. The absence of such a program makes many universities experience difficulties in implementing very complex programs. Coupled with the lack of funds allocated to the maximum, the program has not been maximally implemented. The more practice and the longer the practice or

internship in the field will burden students with financing. Students will spend more when doing Pratik. Practices that have been implemented so far, such as PLP 1 and PLP 3 as well as Community Service Program only, whose credits do not exceed 4 credits and the time is only less than 3 months, have been a lot of funds spent by students, especially the many honors and the time for more than 2 semesters is undoubtedly hard for students.

But the most important thing to pay attention to is the purpose of education itself. The substance of the MBKM Curriculum Program, which prioritizes practice in the field (link and match), is feared to forget or override the primary goal of education. This policy is very thick with a market approach for industrial needs, not to shape the character of students who have a noble character, apply Pancasila values, and love the homeland. It is also feared that higher education will only give birth to working people, not critical thinkers.

In responding to this, six things need to be the main focus of higher education to produce graduates who have competence.

These six things are presented in the following table:

Table 3. Six Main Priorities of Higher Education

Competency Aspect	Explanation
Competency-based education	Each student possesses unique talents and abilities; so, an information technology strategy is required to assist students in selecting the most appropriate study program for their abilities.
Utilization of IoT	The Internet of Things has the potential to improve communication between lecturers and students during the teaching and learning process.
Utilization of Virtual Augmented Reality	Augmented reality can aid students in comprehending theories that require specific simulations based on real-world settings. 3D technology in augmented reality enables the wearer to experience digital simulations in the same way as they would with fundamental physical activities.
Utilization of Artificial Intelligence	The use of AI knows and identifies the learning needs needed by students. Identifying student needs will be faster with machine learning technology embedded in artificial intelligence.
Leadership Character Building	Student character development needs to be done in creating the character of a leader. This character will enable individuals to develop innovations in their work communities.
Building Partnership Skills	Skills for building partnerships often do not get the focus of attention, even though the lack of this aspect will make major programs at Kampus Merdeka stagnant and cannot be implemented.

With these technologies, students are presented with the ease and speed of data retrieval; even the technology can recommend data they had not thought of before. Artificial intelligence presents raw data and data that has been processed into very informative data tailored to the needs of its users. The use of the three technologies above, namely artificial intelligence, IoT, and augmented reality, is expected to create qualified and competent graduates ready to use in the industrial world.

In synchronization, access to higher education in the regions is considered challenging to develop partnerships with agencies or companies related to the distribution of campus graduates. Universities in the areas will experience difficulties because many industries and companies are located in big cities, especially on the island of Java. This has resulted in universities in the regions not being able to place many students to practice in the industries in their area because the ability or

capacity of students is limited. There are still many provinces that are not ready to implement independent campuses. Cooperation with other universities is not an easy matter. Well-established universities certainly require cooperation with other universities. Of course, universities with superior accreditation scores will not accept students from universities with lower accreditation scores. This is certainly not beneficial for students from universities whose accreditation status is still not selected; many private universities in the region will feel this.

In addition, in the realm of preparing the MBKM curriculum, it is still considered immature. Preparing the MBKM Curriculum in Study Programs that still refers to the KKNI is not an easy job. Many difficulties were faced by the drafting team in the study program, which had just finished compiling the KKNI I (*Kerangka Kualifikasi Nasional Indonesia*) curriculum and had just been implemented, then had to rearrange the MBKM Curriculum.

In theory, it is undoubtedly easy to invite curriculum experts and then try to compile it. Still, it is certainly not as easy as turning the palm in practice. Moreover, the KKNI curriculum in the study program has not been implemented for a long time; of course, it has not been evaluated and studied by the study program in-depth and thoroughly, so it is not yet known with certainty its strengths and weaknesses. Adjusting the number of more than 20 credits with a large number of credits requires careful attention from policymakers.

D. CONCLUSION

Based on the results of the research analysis, it can be concluded that the revitalization of the role and function of the Kampus Merdeka to face the era of society 5.0 needs to be carried out in four main aspects, namely Infrastructure, Human Resources, Synchronization of programs in building partnerships, and Application of Technology. So the critical step that the government must take is to take several necessary steps to overcome this, namely competency-based education, Utilization of IoT, Utilization of Virtual Augmented Reality, Utilization of Artificial Intelligence, Formation of Leadership Character, and Building Partnership Skills.

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