

THE ROLE OF ASEAN IN FACING THE FOURTH INDUSTRIAL REVOLUTION (CASE STUDY: EDUCATION DISPARITY BETWEEN SINGAPORE AND INDONESIA)

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ABSTRACT

Digitalization is one of the impacts of the presence of industry 4.0 which is growing massively. This then provides opportunities for convenience in the field of education. but then accompanied by the presence of threats targeting actors in the education sector. In a digital data platform, it explains the dependence of the internet and social media on the community. Specifically, the data also explains that four of the ten ASEAN member countries are included in the top ten countries with the highest social media usage. Indonesia is one of them. Then look at Singapore, as a country that has grown together with Indonesia since the beginning of the formation of ASEAN, has a fairly high level of tendency towards the internet as well. However, we can clearly see the disparity in the condition of education that occurs in the two countries. How can Singapore as a developed country occupy a high PISA score, while Indonesia is still struggling for equal distribution of education itself. ASEAN, an international organization that oversees countries in the Southeast Asian region, seeks to reduce the gap between its members through joint integration. Especially in the case between Singapore and Indonesia. In this paper, the author will explain the role of ASEAN in dealing with educational disparities in the region in terms of readiness to face industry 4.0. Through this approach to International Organization theory, the author concludes that the role of ASEAN in the education disparity that occurs is through normative policies. Among them are joint declarations, bilateral cooperation and providing space for communication between members.

Keywords: ASEAN, education, industry 4.0, PISA

INTRODUCTION

Nowadays, technology is developing rapidly. Digitalization as a product of Industry 4.0 impacts changes in the education system and science development. It results in the ease to obtain information globally. Digitalization can also change the concept of learning conceptualized in the classroom to be more flexible as a solution during the COVID-19 pandemic.

The use of technology in the era of industry 4.0 provides opportunities for convenience and raises threats. Income inequality, nature destruction, cybercrime, and dependence on the use of technology are severe threats to life. Dependence on technology tools in society, generally only used for unuseful things, such as misuse of the internet, is one of the polemics arising due to digitalization (CNBC, 2018).

Data from research by Hootsuite (we are social)—a social media platform, in mid-2019 concluded that the average person spends six hours a day using the internet. It is in line with the increase

in internet penetration in the world, reaching 8.9%. Simultaneously, the use of social media increased by 10.9% between 2019-2020. Of the three data, the percentage of adolescents accounted for nearly 50% of the research object. It shows another perspective of digital transformation, namely the global threat to adolescents as a crucial subject in education (Kemp, 2019).

The impact of this digital transformation threatens countries in Southeast Asia. According to the databoks.katadata website, sourced from 'we are social' research, four of ten ASEAN member countries are included in the ranking of 10-countries with the highest internet level addiction in the world. The first is the Philippines, with the longest internet usage rate of 602 minutes per day. Thailand followed it with an internet usage rate of 551 minutes per day. Meanwhile, Indonesia has an internet usage rate of 516 minutes per day. The last is Malaysia, with an internet usage rate of 485 minutes per day. Following closely, as one of the developed countries in the Southeast Asia region, Singapore has an internet usage rate of up to 422 minutes per day. From the data of internet usage in ASEAN region, we can see the different stage of each members country in ASEAN.

Singapore still the highest one in the context of education aspect. As evidence, the Singapore Program for International Student Assessment (PISA) score is above the average score set by the Organization for Economic Co-operation and Development (OECD). In contrast to Singapore, Indonesia, as a country with a large population and a high level of regional development inequality, faces difficulties in managing education, such as unequal access to education in all country corners. Both of Singapore and Indonesia are growing up together as ASEAN member since the establishment of ASEAN. Singapore is growing as one of developed countries and became the biggest economy in the regions. Indonesia is also growing with abundant economic resource opportunities. But in fact, by the data that shows in above the disparities still happened between them.

The disparity between member countries have triggered ASEAN to establish several policies and joint actions to reaffirm its role as an international institution in dealing with Industry 4.0. It aims to allow member countries to prepare for Industry 4.0 based on their respective capabilities without forgetting their relationships. This follows one of ASEAN's visions, which is to accelerate economic growth, social progress, and cultural development in the region. However, the initiated policies are insufficient for ASEAN to assert itself in facing the challenges of Industry 4.0 and at the same time exploring opportunities in the education sector. This article aims to answering How the role of ASEAN in facing challenge and opportunity of Industry 4.0 in order to education disparities between ASEAN Members Country. The result will be shows the role of ASEAN as the context of international organizations, in facilitating and making normative policies to resolve regional disparities, especially in the case of education disparities in Indonesia and Singapore.

ANALYTICAL FRAMEWORK

The presence of Industry 4.0 creates challenges and opportunities for the global world. Concerning this issue, the author used the international organization theory and the human development index (HDI) concept.

Through the theory and concept, the writer explained how far ASEAN's role, as an international organization, is in facing Industry 4.0 by analyzing the state of human resources in Singapore and Indonesia.

Theory of International Organizations

In the development of scientific advances, international organization theory has developed quite a broad scope with the emergence of various kinds of different schools of thought. Currently, there have been many schools of thought on international organization theory, some of which are liberalists, realists, and institutionalist idealists (Ali, 2011). Nevertheless, in simple terms, an international organization can be defined as a unified system born from a collective or collective agreement between international relations actors.

Liberalists argue that an international organization is formed to build constructiveness and cooperation between countries to promote global prosperity and create peace, which is a common goal (Ali, 2011).

According to Sugito (2016), an international organization is used in carrying out essential functions of a state system. It is a place for policy formation to be jointly decided and as an administrative place to produce actions.

Moreover, Harold K. Jacobson defined the functions of international organizations into five main points.

- a. As an information function that includes the collection, analysis, and exchange of data and information
- b. As a normative function where the inserted instruments do not bind but can influence
- c. As a function of making regulations more legally binding
- d. As a supervisory function for the implementation of regulations
- e. As an operational function, namely the operation of organizational resources (Sugito, 2016).

In another opinion, Karns Mingst (2015) describes the functions carried out by international organizations at the international, state, and individual levels. International organizations function to facilitate cooperation between countries at the international level, provide information and supervision, help resolve conflicts, coordinate the handling of common problems, and build international regimes. At the state level, they function as instruments and legitimacy for foreign policy, providing information

and limiting the actions of a country. Finally, regarding the function toward individuals, international organizations provide space for individuals to socialize and obtain information on the international order (Karns et al., 2015).

Nicolas Burmester (2016) on her thesis mentions three different concepts of international organization :

a. As an instrument

International organizations become a means of carrying out a political process for their member countries to achieve national interests.

b. As an arena

International organizations become an arena for interaction between member countries to carry out integration to formulate a common policy.

c. As an actor

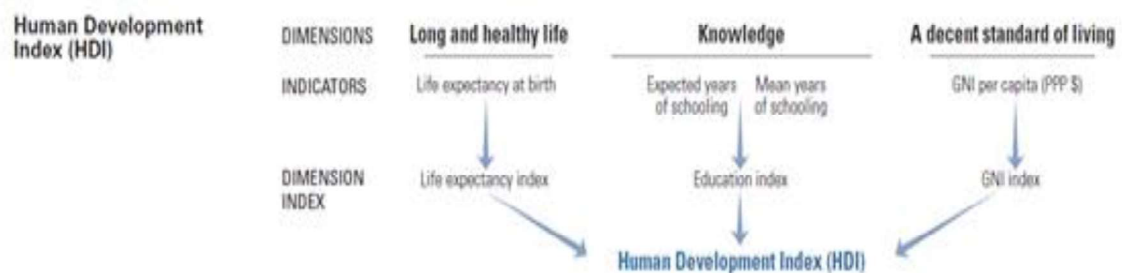
International organizations can become corporations for member countries due to the agreement to hand over part of their sovereignty (Ridho & Sudirman, 2020).

In this paper, international organization theory was applied to analyze how ASEAN as an international organization plays a role in dealing with the era of Industry 4.0, especially in education, using an approach to international organizations' functions for member countries.

Concept of the Human Development Index

The Human Development Index is an overview of achievement standards in the three main dimensions of human development: health, education, and standard of living. The health dimension includes Life Expectancy, and the education dimension covers Expected Years of Schooling and Mean Years of Schooling, while the Standard of Living dimension encompasses Gross National Income per Capita.

Figure 1 The Concept of HDI



Source: Human Development Index (HDI) | Human Development Reports (undp.org), accessed on April 4, 2021

The minimum value on the Life Expectancy Indicator is based on research that in the 20th century, no country has a life expectancy of fewer than 20 years. On the other hand, the maximum value is obtained from the reality of the last 30 years that living conditions have continued to improve along with medical developments. Meanwhile, the minimum value on the education dimension index is obtained because people can normally live without formal education, resulting in the justified minimum number of zero years. The maximum number, 18 years, is obtained from the maximum average Master's degree in some countries.

The calculation of the low minimum value of Gross National Income per Capita is derived from the fact that sizable amounts of unmeasured subsistence and non-market production in the economy are close to the unrecorded minimum. Moreover, the maximum value is based on Kahneman and Deaton's (2010) theory, showing that per capita income above USD 75,000 has almost no impact on development and welfare.

Table 1 Dimension Index

Dimension	Indicator	Minimum	Maximum
Health	Life expectancy (years)	20	85
Education	Expected years of schooling (years)	0	18
	Mean years of schooling (years)	0	15
Standard of living	Gross national income per capita (2011 PPP \$)	100	75,000

Source: (UNDP, 2020)

The Human Development Index was applied to analyze human resources in Indonesia and Singapore concerning readiness to face Industry 4.0. However, this discussion only focuses on education following the title of this paper.

RESEARCH METHOD

A descriptive method and a qualitative study approach were utilized to explain this phenomenon. The descriptive method explained the phenomenon in international relations by answering the questions of who, what, where, and when the phenomenon occurs. This method described the phenomenon in an orderly, objective, and detailed manner. The data were collected from literature studies from journals, books, articles, scientific papers, news, and information from the mass media. Meanwhile, to analyze the data, an inductionist approach focusing on the importance of a global system was employed (Mas'ood, 1990). In this case, ASEAN is an international organization playing a role at the global system level.