

The Existence and Readiness of Vocational Higher Education in Indonesia in Encountering the ASEAN Economic Community (AEC)

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ABSTRACT:

The world of vocational education in Indonesia determines the success and future of ASEAN economic community (AEC) program. This research aims to find out and explore how vocational education develops in Indonesia encountering challenges in the ASEAN economic era and how vocational education applies rules and policies in determining the future of the Indonesian nation and ASEAN globally. This research is a qualitatively descriptive study using interview methods through webinar and review of several sources or references in the form of articles, books, online and offline opinion news related to research issues. This study proves that the strategic policy of vocational education in encountering ASEAN economic community era is needed particularly in terms of the ability of human resources to match the market or education industry in Indonesia and ASEAN globally.

Keywords

Education, Vocational, Community, Economy, ASEAN

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1. Introduction

The ASEAN Economic Community (AEC), which has been implemented since December 2015, is an opportunity for the Indonesian people and Southeast Asia countries to stimulate economic growth. Flexible trade will boost Indonesia's GDP where exports increase, investment enhances and human resources develop. Regarding human resources, the AEC has opened up great opportunities for job seekers in the world because of the large number of job opportunities as needed. Job seekers in Indonesia may freely leave the country in search of work. The AEC also impacts the education sector where the Indonesian human resources' competitiveness, especially in education, is still low compared to other ASEAN countries. Based on data from the 2019 Global Talent Competitiveness Index (GTCI) measuring the growth of ASEAN countries in economy, politics, technology, education, gender

and political stability fields, Indonesia is in the sixth rank after Singapore, Malaysia, Brunei, Thailand, and the Philippines, with a score of 38.61 (Tiro. id, 2019).

Indonesia needs to upgrade the quality of education to improve human resources' competitiveness because the human resources' skills depend on their education. Moreover, the education budget in Indonesia increases every year so that Indonesia can develop in the education sector and compete with other ASEAN countries considering that the quality of education in Indonesia remains low. Education index data for 2017 showed that Indonesia was in the seventh rank in ASEAN with a score of 0.622.

The position of Indonesia in education is shown by the following figure:



Source; Tirto. id, 2019.

Based on the above data, Indonesia has to improve human resources through education. Some significant aspects of education that must be of concern to Indonesia are higher education (universities), vocational education, literacy, the number of researches and the number of researchers. The more these aspects of education increase, Indonesian education will escalate as well.

One of the significant aspects of education is vocational education. Vocational education is a formal education greatly determining the development of human resources' skills (Nurmalasari, 2017). Vocational education is a formal way to provide human resources with various skills so that the percentage of the practicum is greater than theories. Human resources are best prepared to penetrate the world of work. This shows that vocational education is the right path of formal education in producing human resources who are competent in their fields (Calhoun and Finch, 1982). In the implementation of the ASEAN economic community, the vocational education sector is also an industry having a high selling value not only in ASEAN but also in other countries in Europe and America. Vocational education students in Indonesia have a

very high level of readiness, challenges, and perceptions of education and teaching from the outside world (Amin, et al., 2017). This shows that human resources will greatly contribute to the implementation of the ASEAN economic community (AEC) through education. In contrast to the research of Amin, et al., the results of research conducted by Lawitta et al. (2017) with the object of research, namely Vocational High Schools in Indonesia, proved that Indonesian people, especially human resources graduating from vocational education, are not ready to face the ASEAN economic community era due to low educational competitiveness and lack of English language skills English. This indicates that Indonesia has not been able to prepare human resources through vocational education. This research is also supported by the results of research carried out by Sutrisno (2013) showing that 52% of vocational graduates were not absorbed in the work industry so that the Indonesian human resources' competitiveness is also low so that they cannot compete in ASEAN and internationally (Nurmalasari, 2017).

The inconsistency of previous studies has become a benchmark for this research to better view, analyse, and more deeply explore the conditions of vocational education in Indonesia in encountering the ASEAN economic community (AEC). This study aims to determine how the existence and readiness of vocational education in responding to the challenges of the ASEAN Economic Community (AEC) which is currently running. This research focuses more on vocational higher education or Polytechnic to answer these challenges.

2. Literature Review

2.1. Vocational Education and Independent Vocational Program

Vocational education is higher education that focuses more on applied education intending to be able to meet the work industry with the competencies obtained. Vocational education maximizes practice through diploma (D1) to diploma 4 (D4) programs. Vocational higher education in Indonesia is organized by Polytechnics, high schools, academies, and institutes. Vocational education has been applied since 1963 and since then the government has authorized and expanded vocational education to provide students training to enter the world of work (Teach-nology.com). According to Rojewski, in the United States in the early 1900s, there was a debate about vocational training in general education. Two historical figures disagreed with each other, namely Charles Prosser and John Dewey. Vocational education is developed by taking into account economic sector studies, economic development policy studies, and manpower empowerment studies. Economic development greatly gives an effect on the content and direction of vocational/vocational education curricula and programs. Business and market globalization has resulted in a substantial increase and competition for skilled labour and high-quality goods (Rojewski, J.W., 2009; Pavlova, M., 2009 in Kurniawan, 2018).

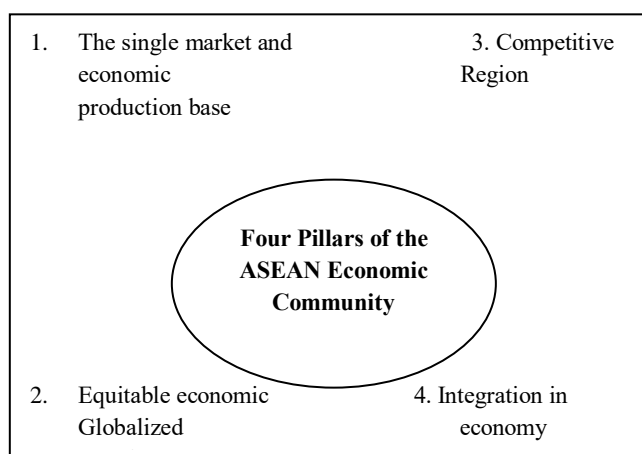
Vocational education is also included in the independent vocational program initiated by the Ministry of Education and Culture through the Directorate General of Vocational Education. This independent program emerged during a pandemic situation because education becomes one of the centres of issues in Indonesia recently. This independent vocational program aims to realize

the absorption of vocational education graduates by the Business and Industrial World. The students of Diploma 3 (D3), through this independent vocational program, will become applied graduates not only as Diploma 3 but they can continue education to the Diploma 4 (D4). For that purpose, vocational higher education can propose an increase in the study program to the applied bachelor's level as long as other than accreditation B; the study program has become a partner of a reputable Business and Industry World. This collaboration and partnership encourage vocational higher education for applied undergraduates to have a more international vision where vocational colleges (Polytechnics) in Indonesia also have access to collaborating with campuses in other countries so the Indonesian Diploma 4 (D4) graduates can go abroad for work. This independent vocational program also provides options for vocational campuses in Indonesia to choose whether they want to stay with the Diploma 3 (D3) level or upgrade to the applied undergraduate (D4) level. If the campus or study program still wants to be in the D3 level, the campus can select the option not to upgrade. This does not mean that Diploma 3 graduates will not have job prospects but they will still receive a portion in the business and industry world (Kemendikbud.go.id).

2.2 ASEAN Economic Community

Since the enactment of the ASEAN economic community in 2015, there has been an increase in business expectations in ASEAN countries which also impact their policies on developing future ASEAN business strategies. The ASEAN economic community opens up great opportunities

and chances for ASEAN countries to do business freely and improve human resources of ASEAN countries so that they can expand and add skills by manoeuvring in other ASEAN countries. However, the manoeuvre should remain in the structure, vision and missions of the ASEAN economic community is defined in four pillars. The four pillars of the ASEAN economic community are shown in the following figure:



Source: ASEAN UP, 2019

Trade and business globally provide many benefits for ASEAN countries, such as the freedom to invest in various fields of business, including in the field of vocational higher education, where the global industry needs human resources who are competent in their fields to contribute in the ASEAN economic community era since its implementation in 2015. The ASEAN economic community is a way for human resources to compete and vocational higher education must answer these challenges by providing skilled and competent personnel who can compete globally.

3. Methodology

This study is an exploratory and explanatory qualitative research in which the research issues are discussed based on the results of online questions and answers through webinars discussing the theme of vocational education and secondary data supporting to confirm the webinar speakers' answers. The data sources used were several books, book chapters, journals or articles, web pages, magazines or online newspapers and the results of conferences or public discussions related to research issues. The method used was the online discussion method, namely through webinars discussing the theme of vocational education in Indonesia and reviews of several references on the phenomenon of vocational education and the ASEAN economic community. The research informants were three speakers of the vocational education webinar, namely representatives of the Ministry of Education and Culture and the Directorate General of Vocational Affairs, as well as an official at one of the polytechnics in Indonesia. Researchers asked questions in the conversation column, recorded the speakers' answers, adapted and concluded all answers into several essential points explaining the research issues. This online discussion method through webinars is considered quite effective amid the current pandemic conditions.

4. Results and Discussion

4.1 Phenomena and Issues of Vocational Higher Education

The researchers summarized the informants' answers explained online through webinars discussing the theme of vocational higher education in Industry in several points. The first

point was obtained from the first speaker from the Ministry of Education and Culture explaining that vocational education in Indonesia includes the formal school of education vocational high schools, Polytechnics, colleges and institutes. Industries in Indonesia have not been able to be absorbed human resources since those industries need reliable and competent human resources. Currently, Indonesia tends to focus on natural resource management and seems to ignore the aspects of human resources needed to manage these natural resources. This fact shows that Indonesia has slumped in terms of human resource empowerment compared to other ASEAN countries, such as Malaysia and Singapore. This is emphasized by a member of Commission X of legislative, Andreas Pareira stating that high human resources in a country will have a good impact on the country's development process in the sense that good human resources indicate a developed country and no developed country with unadvanced education (Media Indonesia, 2020)

Advanced education will be able to provide competent human resources who can compete with those from other countries in the world. The absorption of human resources in the industry is the responsibility of vocational education and vocational higher education. This paper focuses more on the absorption of human resources through vocational higher education, namely polytechnics, high school,s and institutes spread across Indonesia. Data of Central Bureau of Statistics per February 2020 noted that the absorbed workforce was still dominated by workers with low levels of education. It was recorded that of the total 130.03 million workers in Indonesia, around 38.89% were elementary

school graduates, while workers with tertiary education graduates were only 13.02% including vocational graduates. This phenomenon has encouraged President Jokowi's government to take into account to issue a series of policies related to the revitalization of vocational higher education which can create reliable and competitive human resources.

The Jokowi's government has established a Directorate General of Vocational Education in the Ministry of Education and Culture in 2019 to revitalize vocational education in Indonesia. The main mission of the Directorate General of Vocational Education is transforming vocational higher education throughout Indonesia. Based on the webinar participants' answers regarding the programs of the Directorate General of Vocational Education that are being and will be realized, there are several programs related to transformation including the vocational house program, link and match, centre of excellence (COE), entrepreneurial students and industry involvement in the preparation of vocational curriculum. These programs are expected to produce vocational graduates who are competent, characterized and innovative. For the link and match program, the Directorate General of Vocational Education has coordinated with the Business and Industry World to be involved in synchronizing the vocational curriculum with the world of work so that vocational graduates can be ready to use. Besides, vocational higher education also collaborates with the Business and Industry World through the involvement of practitioners in lecturing activities of at least 50 hours per study program each semester (Kompas.com, 2020).

Apart from the issues of vocational education

which are still in the process of transformation, Indonesia still has problems in the quality of workforce where the productivity of human resources is still considered low compared to other ASEAN countries; the average wage is uncertain, the foreign language skills are still low and the unemployment rate is still high (Setyoko, 2015). If these conditions continue in the next ten years, according to the representatives of the Directorate General of Vocational Education, the education system in Indonesia and must be revised because neither higher education nor vocational graduates will be able to compete with other countries in Southeast Asia in terms of intellectual skills, abilities, and technology. Lecturers must be prepared themselves to involve and creating competence human resource (Hambali, 2019).

4.2 Challenges of Vocational Higher Education in ASEAN Economic Community

The Indonesian nation does have abundant natural resources. However, these natural resources must be balanced with human resources because these natural resources should be managed by people having skills and competent in their fields. The director at one of the state polytechnics explained that the ASEAN economic community should not be considered as a threat but an opportunity and chance for human resources in Indonesia to prepare and equip themselves with various skills acquired in education, especially vocational higher education. Vocational higher education is required to be more optimal in preparing human resources to meet the industrial needs in the future. Polytechnic should also provide competency tests for students based on their interests or majors. The competency tests

are intended to enable students to assess themselves before entering the world of industry and work. The competency test results are in the form of recognition or competency certificates that vocational graduates can use in applying for jobs because one of the requirements of the world of work is that they are required to have a competency certificate so that they can immediately work in the field that has been tested.

Polytechnic should also provide English language courses for students to penetrate the free market of the ASEAN economic community. The lack of foreign language skills should be a concern of vocational education in entering the AEC free market because communication is a significant element in determining the quality of human resources. Vocational graduates will also encounter the application of digital technology so that even lecturers and practitioners teaching courses related to digital technology must be equipped with adequate knowledge in its application. Creative and innovative skills are also a challenge in which vocational students are required to create innovations needed by the industry. According to him, Polytechnics throughout Indonesia must prepare students with applied science through entrepreneurial mentoring activities, product development, and prospects in the industrial world. Polytechnics must aggressively view their graduates' potential by involving students in entrepreneurial student events so that vocational students will be challenged and able to compete both nationally and globally.

4.3 The Existence and Readiness of Vocational Higher Education in Indonesia

The three informants (speakers) confirmed and information traced by researchers through articles, magazines or online newspapers, books, book chapters and public discussion reports supported that Indonesia is highly ready in encountering the ASEAN economic community. Even though there are several obstacles related to human resources, Indonesia is very concerned about realizing development in all fields. Indonesia views that the ASEAN economic community era has greatly stimulated existing human resources to continue to improve themselves by upgrading the quality of human resources. This opportunity is used by academics to prepare human resources who are reliable in their fields. The existence of vocational education in Indonesia has been proven by the large number of vocational graduates creating superior products that many other countries are interested in. Until now, according to the three informants, Indonesia is still in the process of improving the quality of human resources. Therefore, vocational tertiary education is expected to maximally attempt through transformation programs launched by the Directorate General of Vocational Education in creating competent and innovative human resources.

Several programs that have been implemented by vocational education have shown changes in terms of increasing the skills of vocational students in Indonesia. The ability to lead, entrepreneurship, problem-solving and work teams are significant points for vocational graduates in encountering the ASEAN economic community. The Polytechnic has made every

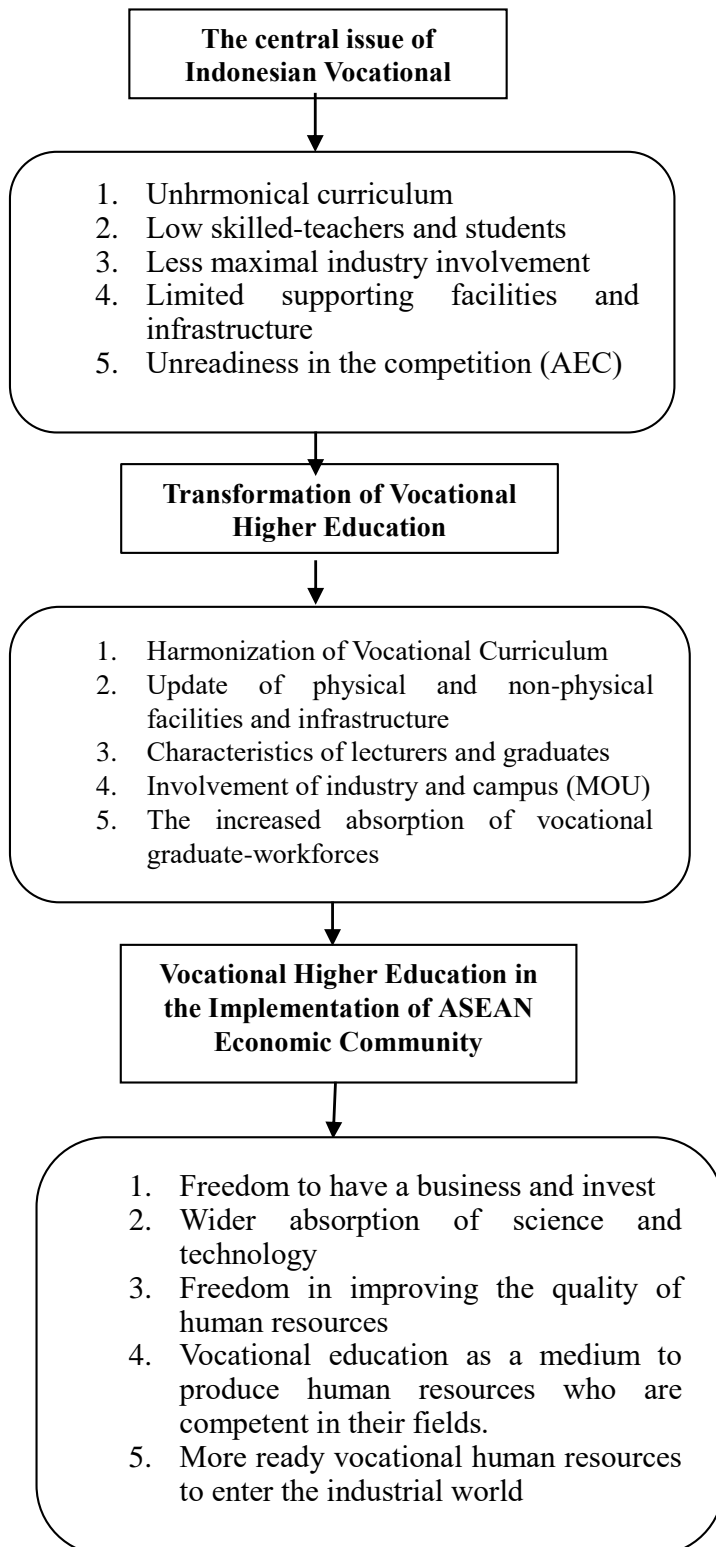
effort in creating a ready-made workforce. The three speakers provided an example of one of President Jokowi's ultimatums to prepare human resources, namely the appointment and addition of the oil and gas study program at the Ambon state polytechnic where students will be prepared with theoretical and practical knowledge to enter the oil and gas drilling industry on Masela Island, West Southeast Maluku, known as the Masela block. This appointment is a great opportunity and responsibility for the Ambon state polytechnic and also a challenge for lecturers and students. Lecturers of this study program are required to equip themselves with qualified intellectual abilities so that they can produce graduates who are ready to use in the Masela block project. This phenomenon breaks the gap that natural resources are not balanced with human resources sounded by Commission X of the House of Representatives. The Polytechnic through the Oil and Gas study program will synergize with local governments and industry together to prepare ready-made workers for the management of the Masela block mega project predicted to start operating in 2026.

Regarding facilities and infrastructure readiness, several vocational higher education facilities have been highly adapted to the current digital era where several polytechnic campuses, colleges, and institutes across Indonesia provide sophisticated facilities so that students can directly access these facilities to support the learning process. Related to facing ASEAN economic community, the success of AEC process depends on seriousness of the implementation in each ASEAN countries (Yahiji, et al., 2019)

5. Conclusions

Based on information from various informants and secondary data sources traced by researchers,

several significant points can be explained and concluded through the following figure:



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