

Enhancing the SDGs 4 through global curriculum and international partnerships to advance the employability of the university graduates

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Abstract. The quality assurance is a cycle that must be continuously carried out by higher education institutions to enhance the quality of education provision. An internal quality assurance is conducted independently by the institutions. Meanwhile, external quality assurance is implemented by external quality assurance agencies, both nationally and internationally, by the policies of each country as well as in Indonesia. This research will focus on how international accreditation of academic programs in Indonesian universities affects the employability of graduates. This study finds out: (1) To what extent does study program's curriculum accommodate global competencies that have to be mastered by graduates? and (2) To what extent does study program's partnership accelerate graduates to be employed by reputable employers? This study uses a qualitative approach and a multi-cases study in three undergraduate programs accredited internationally. As a result, the study programs were periodically updating the curriculum and integrated global competencies to enhance the adaptability of graduates. Furthermore, it was followed by a career preparation program that is organized by the study program. In summary, pursuing SDGs 4, quality education, the study program must answer the gap of the instructional process and job market. One of the solutions is tackling the challenge with the opportunity to develop and accelerate quality education in the context of higher education institution.

1 Introduction

The education has become a primary commodity that needs to be considered, especially in the context of higher education institutions that serve the workforce to meet the demands of the job market [1]. In previous studies, it has been highlighted that higher education is highly valued when its outputs are adaptive in the global job market, in line with the current global competition [2, 3]. The global market triggers dynamics of supply and demand for graduates

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needed by both national and international users or industries. This subsequently leads to how quality assurance and ranking systems in higher education can provide an opportunities for institutions to undergo processes that produce graduates desired by the job market and create broader public accountability [3, 4, 5].

As it is known, the quality assurance is a cycle that must be continuously carried out by higher education institutions to enhance the quality of education provision. An internal quality assurance is conducted independently by the institutions. Meanwhile, an external quality assurance is implemented by external quality assurance agencies, both nationally and internationally, by the policies of each country. As a manifestation of accountability and improvement of institutional reputation at the international level, higher education institutions need to undergo international accreditation [6]. An international accreditation serves as a consensus regarding the provision of quality higher education. Based on Bologna Process Implementation Report 2018 [7]. International accreditation is expected as a response to the dynamic challenges faced by universities, particularly in the current global era. Within international accreditation standards, there are several emphasis on how to address the process of education within universities, including curriculum, teaching process, student support, and collaboration with stakeholders [8, 9, 10]. Previous studies have suggested that in several countries, international accreditation has been able to elevate the quality of the learning process, the quality of alumni, and even the quality of the educators [11, 12, 13, 14].

In Indonesia, the higher education institutions have the option to pursue international accreditation as part of their external quality assurance process, in addition to national accreditation [15]. This research focuses on how international accreditation of academic programs in Indonesian universities affects the employability of graduates. An international accreditation serves a measure of university performance outlined in the Indonesia's Key Performance Indicators for Higher Education [16]. This initiative represents as one approach to tackle the global challenges of higher education in Indonesia, especially in providing the competent graduates. According to data from BPS in Indonesia for the year 2023, the percentage of university graduates who are unemployed stands at 12% of the total 8.43 million unemployed individuals in Indonesia. Additionally, considering the composition of the workforce in Indonesia at 60.12%, which consists of 39.88% formal workers and 56.64% informal workers [17]. This indicates that a significant portion of the workforce has uncertain income. Universities play a crucial role in providing quality manpower. An overview of how universities ensure quality through international accreditation can be a recommended to consider in producing competent graduates and addressing the needs of the job market.

In the concept of quality assurance in higher education, quality encompasses five aspects: (a) exceptional; (b) perfection; (c) fitness to purpose; (d) value for money; (e) transformation [18, 19]. The aspect emphasized in this study is fitness to purpose, where universities have the primary goal of providing quality education to produce competent graduates. This aspect of quality can be achieved when universities undertake quality assurance. Several studies have indicated that universities implementing quality assurance experience improvements in the learning process and an increase in the graduate employability rate, although it may not be maximal [20, 21]. This subsequently creates a gap between the ideal concept of quality assurance in universities and the graduates that universities should produce. Several standards in international accreditation address the dynamics of universities in the current global era, leading to three research questions, including:

RQ1: To what extent does study program's curriculum accommodate global competencies that have to be mastered by graduates?

RQ2: To what extent does study program's partnership accelerate graduates to be employed by reputable employers?

As a research limitation, this study conducted at three study programs in a University that is located in Indonesia that were internationally accredited. The researcher will focus on study programs that were accredited by the international accreditation agency FIBAA. The researcher will investigate how international accreditation of study programs can enhance graduate employability in the context of Indonesia.

2 Method

This study employs qualitative research with a multi-case study approach, where researchers delve deeply into data from individuals involved in the cases to interpret their experiences, perspectives, and backgrounds through multiple interviews, observations, and documentation [22, 23] they focus on thoroughly examining individuals' lives within their natural contexts. This methodology is consistent with Cultural Historical Activity Theory (CHAT), which suggests the individual object-activity systems interact with other related activity systems in the environment [24]. Thus, the analysis in this study concentrates on the collaborative activity system involving HEI graduates, students, lecturers, management boards or leaders of HEIs, and stakeholders or HEIs' partners, who play significant roles in implementing IoHE to enhance graduates' competencies. This study employed in Universitas Negeri Surabaya, focused on three internationally accredited undergraduate study programs. Research participants in each case consist of five participants including Head of study programs, lecturer student, alumni, and stakeholder. The data from the three cases were gathered through semi-structured interviews and relevant documents. All participants were interviewed at separate times and locations to reduce bias and subjectiveness. After data were collected, data analysis was conducted through Nvivo. The stages of data analysis included:

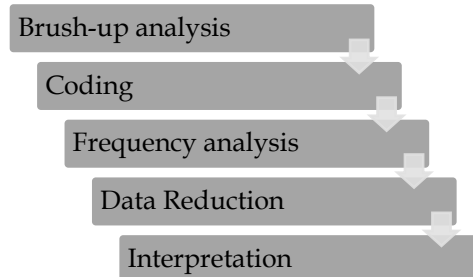


Fig. 1. Data Analysis Stages

Brush-up analysis was conducted by uploading the data to Nvivo12 to run query features, it is shown in the form of the word cloud and word frequency. The following step was to map out the code of each group of data based on RQ. It is crucial to make sure all of the data are ready to be filtered. All of the queries and code had to be analyzed through frequency analysis. Frequency analysis showed how many times a code was noted and its percentage. Then, the data that were not frequently noted were filtered, it was a data reduction stage. The data were finally interpreted through discussion, which was based on the theory and actual condition of each case.

3 Result and Discussion

The research data were gathered and analyzed by mapping out the frequency of each word that appeared mostly. The data on how international accreditation enhances the employability of university graduates were collected through interviews, documentation, and observation

to understand the cases. We analyzed 15 words that frequently appeared on the notes field. Here are the following figures that describe the research data.



Fig. 2. Word Cloud of Main Case

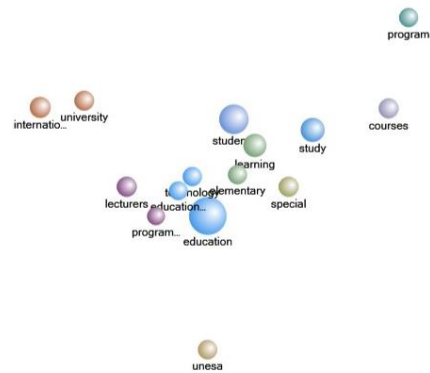


Fig. 3. Map Cluster of Main Case

From the figures above, the word “education” weighted a percentage of 2.21%, while “students” weighted a percentage of 1.58%. The following words are “study” and “learning” which are weighted 1.15% and 1.08 of their percentage. The fifth word for the biggest five words that appeared is “international” weighted 0.92%. The rest of the ten words weighted below 0.9%, these words are “lecturers”, “special”, “courses”, “university”, “Unesa”, “technology”, “elementary”, “program”, “educational”, and “programme”. Based on the previous description, it can be said that the five words that appeared most “education”, “students”, “study”, “learning”, and “international” have a big contribution in reflecting how international accreditation influences the employability of university graduates.

An international accreditation requires international exposure and a global environment of the university. This resulted in the enhancement of some international programs, including student and staff mobility. Previously, the four study programs are already concerned with international programs to gain a global outlook. But, then after four of them are internationally accredited, without condition, the development of the international program to achieve higher employability and a wider scope of the job market is continuously maintained. The strengthening of partnerships was conducted through international internships, student exchange, laboratory development, joint research, and community services. The output of the programs is related to students' competency in mastering English as a second language, students cross-cultural understanding, and students' networks. The university's partner also offered job vacancies to the graduates of international programs. It means that the graduates have a wider opportunity compared to graduates who were not involved in international programs. This finding is relevant to some previous studies, such as Tomlinson and Tran [25] that stated there are several contextual factors that influence a graduate's employability, including the availability of job opportunities relative to their resources, the conditions of the local job market, and individual circumstances. Others said that the employment opportunities for international graduates are greatly influenced by their social network, personal agency, understanding of the local socio-cultural context, and a positive attitude toward challenges [26]. This description brought up a vision of developing a global curriculum and widening partnerships to enlarge the students' capability. Further description of how the study program's curriculum and partnerships enhance the graduates' employability will be described on the following points.

3.1 The study program's curriculum accommodates global competencies

One of the criteria in the international accreditation standards require a holistic process of education in HEI is developed through curriculum. The curriculum is the main factor that directs the instructional process of students. It needs to be acknowledged by the teaching staff that through curriculum development, global competitiveness can be achieved by the university's graduates. Furthermore, a general view of this point can be seen in Figure 4 below.



Fig. 4. Word Cloud of Study Program's Curriculum in Accommodating Global Competencies

Figure 4 above shows 15 words with the most frequency in this case. The first word is "courses" which weighted 2.81%, followed by "education" at 2.15%, and then the word "students" weighted 2.04%. The rest of the words weighted below 2.00, they are: "study", "learning", "program", "special", "elementary", "PLO", "curriculum", "compulsory", development, "ETE", "children, and "research". Three study programs that involved in this research are Elementary Teacher Education (ETE), Special Education (SE), and Education Technology (ET). The three study programs have been developing and updating their curriculum relevant to the global competencies. Based on the word cloud on the Figure 4, three study programs designed the curriculum in alignment with the academic vision of the program, which prepares future educators and education staff with a global perspective. It is reflected through instructional activities that considered international standards, as outlined in their Program Educational Objective (PEO). Generally, PEO stated that the program aims to create an adaptive and competitive graduates both in national and international scope. Regarding to the global demands of competitive labor, study programs prepared their students by enhancing of students' English language skills. It is projected in some activities, including English course, bi-lingual class program, international students exchange (inbound and outbound), and international staff mobility as well as the part of supporting programs. the curriculum includes a mandatory course called Basic English. In addition, more than 90% courses are designed with content related to international education. It is also supported by students services that are provided by the study programs and university, such as international journal access to enhance the quality of the learning references, international conference for students, and opportunity to publish their scientific articles in national and international journal.

To enhance the quality of the instructional process, the curriculum are updated and evaluated every year through partial evaluation and for every four years through summative evaluation. By evaluating curriculum periodically, the study programs also involved the students, alumni, teaching staff, and stakeholders to give their perspectives of what they need in a global environment recently. The result of the evaluation will be considered by the study programs, which inputs that is essentials for the curriculum. As the follow up steps of the

evaluation program, the updated curriculum was also reviewed by the experts to make sure that it is still relevant with the core of the knowledge and field.

Based on the finding, some previous studies stated related results. Hager and Holland stated that it is crucial to evaluate how effectively the skills learned in higher education can be applied to careers within the industry, which means students skills are developed through a set of curriculum in higher education. Furthermore, Orr also found out that education providers, need to create work-ready individuals, nationally and globally, to bridge the demands of global job market [27]. Beside that Vreuls mentioned about the involvement of the stakeholders, HEI involve all (internal and external) stakeholders from the outset: in needs analysis, trend analysis, design, development, implementation, and evaluation between the HE sector and industry so that the actual conditions of the job market can be captured clearly by the HEI [28].

As the output of a curriculum that accommodates global competencies, students were oriented to develop their networking through international activities. The research participants that are students and alumni (n = 8) said that there were several skills they mastered while pursuing international programs: communication, firm and adaptive, collaboration, foreign language skill, critical thinking, and innovative. It is also aligned with the university characters value that are integrated through the study program vision and PEO. Alumni of the three study programs were promoted to some international education institutions and some of them took the opportunity. They mentioned that the compulsory and elective courses supported them to enhance the required skills, both theory and practical. As the result, they were accepted as teachers in international school, international start-up staff, and some positions in multinational and international company. Furnham and Bochner stated that HEI must support students in developing global skills, which means that it is not only an individual effort. Furthermore, in their findings, opportunities for development are important, but without support, students may experience negative emotions and psychological stress [29]. At the end, HE needs to map out the conditions and the demand of global job market, which kind of skills and competencies that have to be developed and reflected through curriculum.

3.2 International partnership accelerate graduates to be employed by reputable employers

HEI partnerships are crucial for the development of education process. This section outlines the collaborations with partners, which aim to enhance the profile of graduates as teachers, novice researchers/research assistants, and education practitioners. Figure 5 below shows the words that frequently appeared to describe the findings further.



Fig. 5. Word Cloud of International Partnership in Accelerate Graduates to be Employed by Reputable Employers

From the Figure 5 there are five words that frequently appeared and formed the description of the findings. The word “education” is at 2.89% and still at the top word that appeared; “study” is at 2.01%; “special” is at 1.75%; “graduates” is at 1.65%; and “program” is at 1.39. Based on the data that were gathered, international partnerships can significantly enhance the three study program’s ability to prepare their graduates for the global workforce. The study programs enhance their global reputation by inviting lecturers to conduct international class program and it attracted a diverse student body and faculty. This diversity enriches the learning environment and prepares graduates to work effectively in international settings. The stakeholders who involved as research participants (n = 4) stated that they interested to graduates from universities that have strong international partnerships. The graduates are seen as having a more diverse skill set, global awareness, and the ability to work in multicultural teams, making them competitive in the global job market. It is shown by the data that several of their graduates have worked in international schools such as Sampoerna Academy School, Surabaya Grammar School, and Labschool at the State University of Surabaya.

Furthermore, through partnerships with international companies and organizations, the study programs are able to provide students with opportunities for internships, placements, and collaborative projects. This hands-on experience in a global context prepares students for careers in international or multinational environments. Some participants agreed that international partnerships allowed the students to study abroad, experience different cultures, and gain a broader perspective. This exposure helps students develop intercultural competence, adaptability, and a global mindset. This finding leads us to understand that international programs can foster self-reliance in students as learners. According to Song, students must make a significant behavioral shift by transitioning from a traditional educational approach to a more independent learning environment, where they are required to find a solutions to problems rather than merely memorizing textbook content [30]. Additionally, studying abroad offers unique opportunities and experiences that would not be available if students chose to stay in their home countries [31]. Moreover, international students are encouraged to navigate cultural and interpersonal challenges, enhancing their resilience and maintaining a positive [32].

4 Conclusion

International accreditation is an option for HEI to make sure their education process are well maintained and provide opportunities for students to pursuing their study in a global environment. Two criterias that are essential for HEI are curriculum and international partnerships. The findings indicate that the study programs regularly update their curriculum and integrate global competencies to improve graduates' adaptability. Additionally, this is supported by a career preparation program organized by the study program and international partners which beneficial to enhance the quality of students learning process. The quality education, positioning the SDGs 4, is a dynamic process that have to be created by education providers. Ultimately, higher education institutions must access the conditions and demands of the global job market to identify the skills and competencies that should be cultivated and incorporated into the curriculum. It is important to understand that HEI needs to embed global competencies into the curriculum, such as intercultural communication, global awareness, and the ability to work in diverse teams. This can be achieved through international case studies, exchange programs, and collaboration with global institutions. Besides that stakeholders are crucial to give a new perspective of the global demands. Through international partnerships, it gives students to involve in experiential learning activities, such as internships, co-op programs, service learning, and project-based courses. These

experiences allow students to apply theoretical knowledge in practical settings and gain valuable hands-on experience.

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