ABSTRACT

This research aims to identify and provide a foundation or solution to the development of superior human resources for the benefit of the development of society, nation and state, namely by increasing the competence of graduates and the learning quality in higher education in Indonesia. In addition, this study also aims to prove empirically that learning outcomes and Indonesian Qualification Framework (IQF)-based curriculum as moderating variables can improve the competence of university graduates in Indonesia. Using probability sampling method with random sampling technique, this research also use MRA (Multiple Regression Analysis) analysis tool as the hypothesis testing. The results showed that the learning quality had a significant direct effect on the competence of graduates. The indirect effect of learning quality on graduates' competencies with learning outcomes and IQF-based curriculum as moderating variables shows that the IQF-based curriculum strengthens the influence of learning quality on graduate competencies. Therefore, the IQF-based curriculum is a moderating variable to improve graduate competencies. On the other hand, learning outcome does not strengthen the relationship of learning quality to graduate competencies, so learning outcome is not a moderating variable.

Key words: Contingency Model, Learning Quality, IQF, Learning Outcome, Graduates Competencies.

1. INTRODUCTION

The labor movement between countries in the current global era is increasing, especially with the existence of global alliances (AEC, AFTA, WTO). Therefore, the demands for the management and improvement of the quality of the national workforce and the equality of qualifications with foreign workers will be one of the biggest challenges for the development of the Indonesian economy. The quality of Indonesia's human resources is still relatively behind compared to other countries even though it is within the scope of ASEAN. This is reflected in the Human Development Index issued by the United Nations Development Program (UNDP).

The United Nations Development Program's Human Development Report, released on March 14, 2013 and was compiled based on 2012 data covering 185 of 193 UN member states. Based on the UNDP study, the position of Indonesia's Human Development Index (HDI) compared with neighbouring countries is: Singapore 9 and Brunei 30 (very high); Malaysia 62 and Sri Lanka 73 (high); Thailand 89, Indonesia 108, Philippines 117, Timor Leste 128 (intermediate). It shows that Indonesia's human resources are still lagging behind. Therefore, in order to catching up, Indonesia must try harder than other countries.

Universities as agents in the development of human resources must become the pioneers in the development of higher education curriculum not only to ensure the quality of graduates but also to ensure they have high competitiveness. Therefore, the development of the higher education curriculum must always be refined. A well established quality standard for competence as learning outcomes is needed in order to create accountable human-resources by universities. In an effort to qualify university graduates in Indonesia, the government has issued Presidential Regulation No. 8 of 2012 concerning the Indonesian Qualifications Framework (KKNI), which is a competency qualification framework that can pair, equalize, and integrate education and job training fields as well as working experience to provide recognition of work competencies in accordance with the work structure in various sectors.

Competence is the accumulation of a person's ability to carry out a job description in a measurable manner through a structured assessment, covering aspects of independence and individual responsibility in the work field. The learning outcome according to the IQF is an internalization and accumulation of knowledge. It also the skills, attitudes, and competencies that are achieved through a structured educational process that covers a particular field of science / expertise or through work experience. The existence of IQF is expected will change the way a person sees competence, it is no longer merely a diploma but by looking at the nationally agreed qualification framework as a basis for recognition of one's educational outcomes widely (formal, non-formal, or formal) accountable and transparent.

The IQF curriculum emphasizes the importance of learning outcome as a determinant of the university graduates profile. Therefore, it is important to map learning outcomes that affect the quality and competitiveness of university graduates so that they can be improved to respond to stakeholder needs. Universities can develop their respective curriculum by referring to the National Standards of Higher Education for each Study Program which includes the development of intellectual intelligence, noble character, and skills. However, they can develop the institution's and existing study programs’ identifiers as the attraction factor for students and other stakeholders. Normatively, there are directives for learning outcomes, however the implementation of learning outcomes that can meet the expectations of most stakeholders seems to still need more in-depth study.

Based on the description, this study aims to analyse the learning quality, IQF-based curriculum, and learning outcomes on graduate competencies. In addition, this study will also analyse the learning quality with an IQF-based curriculum and learning outcomes as a moderating will improve graduate competencies.
Indonesian Qualification Framework (IQF) Based Curriculum as a Contingency Model to Improve Graduates Competencies

1.1. Graduates Competencies
Etymologically, competence is defined as the ability needed to perform or carry out work based on knowledge, skills, and work attitudes. Competence can be interpreted as a person's ability that can be observed including knowledge, skills and work attitudes in completing a job or task in accordance with the specified performance standards. Competence can also be interpreted as mastering a task or skill as well as attitudes and appreciation needed to support one's success in a task and job.

Government Regulation Number 19 of 2005 Article 26 paragraph (4), stated that the standard of competence of graduates at the higher education level aims to prepare students to become members of society with noble character, possessing knowledge, skills, independence, and attitudes to find, develop, and apply science, technology and art, which is beneficial to humanity. Therefore, graduate competence is a graduate ability qualification which includes attitudes, knowledge, and skills in accordance with agreed national standards. This competency-related standard is an agreement on competencies needed in a field of work by all "stakeholders" in their fields.

1.2. Learning Outcomes
Learning outcome is an internalization and accumulation of knowledge, attitudes, skills, and competencies that are achieved through a structured educational process that covers a particular field of science / expertise or through work experience. The education unit level curriculum for each study program in higher education is developed and established by each university by referring to the National Standard of Higher Education (SN-DIKTI).

The level 6 learning outcomes in the IQF (Perpres. Number 8, 2012), namely:

- Able to apply their fields of expertise and utilize knowledge, technology, and / or art in their fields in solving problems and be able to adapt to the situation at hand (Work Capability)
- Mastering the theoretical concepts of certain fields of knowledge in general and the theoretical concepts of specific sections in the field of knowledge in depth, and able to formulate procedural problem solving (Knowledge Mastery)
- Able to make the right decisions based on analysis of information and data, and able to provide instructions in selecting various alternative solutions independently and in groups (Attitudes and Values)
- Responsible for the work itself and can be given responsibility for the achievement of organizational work (Authority and Responsibility).

1.3. The IQF-based Curriculum
The IQF-based curriculum emphasizes the importance of learning outcome as a determinant of the university graduates profile. Therefore, it is important to map learning outcomes that affect the quality and competitiveness of higher education graduates so that they can be improved to respond to stakeholder needs. Universities can develop their respective curriculum by referring to the National Standards of Higher Education for each Study Program which includes the development of intellectual intelligence, noble character, and skills. However, every college can develop the institution's and existing study programs’ identifiers as an attraction factor for students and other stakeholders. Normatively, there are directives for learning outcomes, however the implementation of learning outcomes that can meet the expectations of most stakeholders seems to still need more in-depth study.
1.4. Learning Quality

Competence is the accumulation of a person's ability to carry out a job description in a measurable manner through a structured assessment, covering aspects of independence and individual responsibility in the field of work. The learning outcome according to the IQF is the internalization and accumulation of knowledge, skills, attitudes, and competencies achieved through an educational process that is structured and covers a particular field of science / expertise or through work experience. The existence of IQF is expected will change the way a person sees competence, it is no longer merely a diploma but by looking at the nationally agreed qualification framework as a basis for recognition of one's educational outcomes widely (formal, non-formal, or formal) accountable and transparent. Law No. 12 of 2012 (Article 35) states that: (1) the higher education curriculum is a set of plans and arrangements regarding the objectives, content, and teaching materials and the methods used as guidelines for the implementation of learning activities to achieve the goals of higher education. (2) The Higher Education Curriculum referred to in paragraph 1, is developed by each University by referring to the National Standard of Higher Education for each Study Program which includes the development of intellectual intelligence, noble character, and skills.

Murtiani (2013) stated that the application of the 5E Learning Cycle learning model can improve student competence because in the implementation of learning activities provides many opportunities for students to be actively involved physically, mentally, and emotionally through direct practice activities. Relevant with Rifandi (2013), the learning quality is influenced by the professionalism of lecturers, facilities, and learning media.

Based on the theory and the logic of thinking above, the following hypotheses can be formulated:

H1: The learning quality has a significant direct effect on graduates’ competencies.
H2: The learning quality with learning outcomes as moderating variables will improve graduates’ competencies.
H3: The learning quality with an IQF-based curriculum as a moderating variable will improve graduates’ competencies.

2. RESEARCH METHODS

This research was conducted as confirmatory research, namely a causal explanation or the relationship between variables studied through testing hypotheses so that conclusions can be drawn (Alatas et al., 2011). The description of the activities carried out this year can be seen in the flow chart Figure 1 below.

The research population is all private universities in Indonesia located in the Kopertis I-XIV region, with minimum criteria for institutional accreditation B and already implementing the IQF curriculum. Using random sampling technique (Samudro and Mangkoedihardjo, 2012), the data obtained in the research needs to be analyzed so that the right conclusions can be drawn. Therefore, it is necessary to establish analytical techniques that are in accordance with the research objectives, as well as to test the truth of the hypothesis (Cooper and Emory, 1995). Several stages in data analysis, namely: first, the instrument validity and reliability test. Validity test is done to ensure that each item in the research instrument is able to measure the variables set in the study. Each value obtained for each item is correlated with the total value of all items for a variable. The correlation test used is corrected item-total correlation (Santoso, 2006). The reliability test uses Cronbach Alpha (α), where an instrument can be said to be reliable if it has a Cronbach alpha ≥ 0.6 (Ghozali, 2007). The next stage is analyzing data and testing hypotheses using Moderated Regression Analysis (MRA).
3. RESEARCH RESULTS

3.1. General Description of Respondents

Of the 789 questionnaires sent to respondents, 347 copies returned with a response rate of 43.98%. Of the 347 returned questionnaires, 137 questionnaires can be analyzed. 210 questionnaires could not be analyzed because of the incomplete answers. Table 1 below shows the sample and sample rate of return.

**Table 1 Sample and Sample Rate of Return**

<table>
<thead>
<tr>
<th>Description</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questionnaires sent</td>
<td>789</td>
</tr>
<tr>
<td>Questionnaires not returned</td>
<td>442</td>
</tr>
<tr>
<td>Questionnaires returned</td>
<td>347</td>
</tr>
<tr>
<td>Questionnaires unused</td>
<td>210</td>
</tr>
</tbody>
</table>
3.2. Data Validity and Reliability Test

The construct validity in this study was tested using corrected item-total correlation, which is by correlating the total score with the score obtained in each question item. With the number of respondents \( n = 137 \) and a significance level of 5%, the questionnaire item is declared valid if the correlation coefficient \( r \) is more than 0.11 (Santoso, 2006). Correlation coefficient value of the research questionnaire can be seen in the corrected item-total correlation. If a questionnaire item is invalid, the item will be deleted. Validity test results for each research variable shows the corrected item-total correlation above 0.11 so that the validity test results for all research variables are valid.

Reliability analysis was performed using the Alpha Cronbach coefficient of 0.6 for each questionnaire for each variable. Reliability shows the consistency of measuring devices in measuring the same symptoms. A measuring device is said to be reliable if the Alpha coefficient is above 0.6 (\( \alpha > 0.6 \)). Reliability testing results showed Alpha coefficient values above 0.6 (\( \alpha > 0.6 \)) for all research variables.

3.3. Hypothesis Testing

The relationship pattern of the four research variables can be identified by three hypotheses. These hypotheses are tested using Moderated Regression Analysis to examine the effect of each independent variable on the dependent variable. Hypothesis testing with MRA analysis is based on the results of processing from the research model. The results of data processing using MRA analysis can be seen in Table 2 as follows.

Table 2 Moderated Regression Analysis Results.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>95.0% Confidence Interval for B</th>
<th>Correlations</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>Lower Bound</td>
<td>Upper Bound</td>
</tr>
<tr>
<td>I (Constant)</td>
<td>9.139</td>
<td>1.118</td>
<td>8.174</td>
<td>.000</td>
<td>7.381</td>
</tr>
<tr>
<td>KB</td>
<td>.423</td>
<td>.079</td>
<td>.495</td>
<td>5.355</td>
<td>.000</td>
</tr>
<tr>
<td>KB.LO</td>
<td>-.069</td>
<td>.077</td>
<td>.089</td>
<td>-.899</td>
<td>.000</td>
</tr>
<tr>
<td>KB.KKNI</td>
<td>.229</td>
<td>.085</td>
<td>.280</td>
<td>2.691</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Graduates Competencies

The results show that the C.R. value of the learning quality on graduate competencies is 5.355 with a p-value of 0.000. Based on this value, the first hypothesis which states that learning quality has a direct effect on the graduate competencies is accepted, because the C.R. value and p-value fulfills the significance requirement, which is 1.96 and 0.05.

The interaction of learning quality with learning outcomes on graduate competencies is -0.899 with p-value of 0.370. Based on these values, the second hypothesis which states that the better the learning quality and learning outcomes in each subject will improve the
The interaction of the learning quality with the IQF-based curriculum on graduate competencies shows that the value of C. R and p-value is 2.691 with p-value of 0.000, so it can be said that the third hypothesis is accepted, because the CR value and p-value has fulfilled the significance requirement. Therefore, it can be concluded that the better the learning quality in higher education institutions that have implemented the IQF curriculum, then the graduate competencies created by these universities will become better.

3.3. The Implication of the Research Results

Minister of Research and Higher Education Regulation Number 44 of 2015 concerning National Standards for Higher Education stated that in the implementation of the learning program and determining the type and qualifications of graduates a curriculum is needed which plays a role in determining the success of education.

The results of the model testing show that the learning quality has a significant direct effect on graduate competence. The indirect effect of learning quality on graduates' competencies with IQF-based curriculum as a moderator has a significant level of influence. This indicates that the IQF-based curriculum can significantly improve the learning quality. Therefore, the IQF-based curriculum should be implemented to improve the graduates' competencies in higher education in Indonesia. In line with the results of previous studies which stated that the performance of qualified lecturers who have a commitment to their profession as a lecturer can improve the outcomes of qualified and competent graduates in their fields (Trisnaningsih, 2017).

Lecturers have a significant influence in the quality formation of human resources in cognitive, affective, and psychomotor aspects. Lecturers are one of the guarantors of quality in the education process which is a professional education staff who are required to have competencies so that they can realize quality performance standards (Trisnaningsih, 2012). Furthermore, it is expected to lead to the improvement of the quality of the performance of higher education institutions and have an impact on the quality of education or the quality of graduates. Trisnaningsih (2013) stated that lecturers who have high motivation for their institution, their performance become better with better quality as well. Therefore, the lecturers are the spearhead of higher education institutions that greatly influence the quality of graduates' outcomes.

The phenomenon shows data and the fact that Indonesia's human resource capabilities are still lagging behind other countries. Universities as human resource development agents, in addressing government policies related to the IQF-based curriculum, universities have improved the learning quality by improving learning outcomes and developing the IQF-based curriculum which is accompanied by their respective study identifiers. The implementation of this study result is an effort to improve the graduates’ competencies and the competitiveness of higher education. As for the implementation of the IQF-based curriculum and the improvement of learning outcomes in various higher education shows unequal results. This is indicated by the level of learning outcomes of different graduates. Therefore, further competency research studies are needed, in order to improve the quality of superior and noble human resources.

4. CONCLUSIONS

The results of data analysis show that learning quality has a significant direct effect on graduate competencies. While the IQF-based curriculum serves as a moderating variable in
the relationship between the learning quality to the competence of higher education graduates in Indonesia. The learning outcome does not function as a moderating variable. Thus, it can be concluded that all higher education institutions in Indonesia are required to implement an IQF-based curriculum by formulating the right learning outcome for all courses.

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