The Implementation of Higher Education Social Responsibility as a Strategy to Build Effective Linkages between Higher Education and High Schools

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ABSTRACT
This study aims to give empirical evidence about the effectiveness of higher education social responsibility (HESR) as a strategy to build effective linkages between higher education and high schools on its sustainable competitive advantage. The appropriate HESR activities to be implemented by higher education for high schools are needed to build strong sustainable relationship between them. The case study using combination between qualitative and quantitative research methods of Akademi Akuntansi YKPN Yogyakarta – a leading vocational accounting higher education in Indonesia - is used for this research. The research result shows that the number of HESR activities implemented by higher education for high schools as a strategy to build effective linkages between higher education and high schools have positive significant effects on higher education sustainable competitive advantage. The hypothesis testing also shows that those HESRs have positif impact on its new student number from related partner high schools. This research contributes to the analysis of supply chain linkage literature especially linkages for higher education institution with high schools through the implementation of HESR as a strategy of higher education to build those effective linkages. This topic in higher education is very important but very rare had been researched.

Keywords: higher education social responsibility (HESR), strategy on the supply chain, and sustainable competitive advantage

1. BACKGROUND

In the recent years, many Indonesian higher education institutions can find their best way to survive and keep their existence. Many others also can survive and keep their existences with their restrictions and keep this condition although the number of students always decline year by year. Many others already could not survive and not exist anymore, because they did not do anything to try to survive.

The Indonesian higher education institutions that can survive and keep their existences usually have developed their strategies to get competitive advantage. According to Porter (1985), competitive advantage is at the heart of a firm’s performance in competitive markets. After several decades of vigorous expansion and prosperity, however, many firm lost sight of competitive advantage in their scramble for growth and pursuit diversification. Today the importance of competitive advantage could hardly be greater. Firms throughout the world are faced slower growth as well as domestic and global competitors that are no longer acting as if the expanding pie were big enough for all.
To be ready to join the ASEAN Economic Community (AEC), the Indonesian higher education institutions need to provide graduates who meet the needs of competencies. In order to be able to provide such graduates, the management of the higher education is not only having to focus on the development of appropriate curriculum and teaching and studying processes, but also having to be able to get qualified new students. Those qualified new students who come from high schools as the main raw materials of higher education combine by appropriate curriculum and teaching and studying processes will result the qualified graduates who meet the needs of competencies as mention above.

To get qualified new students, the reputation of higher education is a crucial factor. Although, higher education reputation usually can be built by develop and implement the curriculum that meet the industrial need and the best and dicipline teaching and studying processes, those are not enough. This is which is mentioned by Porter (1985) as start too late. The high schools as the primary supplier - provide new student candidates - and new student candidates should know and understand about the higher education reputation. In order to promote higher education reputation to them, building strong symbioses mutualisms effective linkages with high schools is needed.

Building strong symbioses mutualism effective linkages with high schools often been forgotten by the higher education institutions. These strong symbioses mutualism can promote and enhance the higher education reputation effectively from the high schools perspective. By having these strong symbioses mutualism effective linkages, the supply of qualified high schools graduates as the new student from partner high schools - which know and understand about the higher education reputation - can be granted. These kinds of linkages can be effectively built by the implementation of higher education HESR for high schools.

This study aims to give empirical evident about the effectiveness of corporate social responsibility (HESR) as a strategy to build the linkage between higher education and high schools - in order to build strong symbioses mutualism - on sustainable competitive advantage. The case study using combination between qualitative and quantitative research methods of Akademi Akuntansi YKPN Yogyakarta – a leading vocational accounting higher education in Indonesia - is used for this study. This research is conducted to answer the research questions of:

1. What kinds are the HESR activities as a strategy to build effective linkages with high school is implemented by Akademi Akuntansi YKPN?
2. What are the impacts of current HESR as a strategy to build effective linkages with high school implemented by Akademi Akuntansi YKPN on its sustainable competitive advantage?

This research contributes to the analysis of supply chain linkage literature especially linkages for higher education institution with high schools through the implementation of HESR as a strategy of higher education to build those effective linkages. This topic in higher education is very important but very rare had been researched. This research also gives understanding that the implementation of HESR as a strategy mention above for higher education will give impact on higher education sustainable competitive advantage which is not only can be seen in the short term but also in the middle and also long term.

2. THEORIES AND HYPOTHESIS DEVELOPMENT
The stakeholder approach to strategic management was first proposed by R. Edward Freeman in 1984. Unlike the traditional view of corporate strategy, which largely equates stakeholder terms with corporate owners or shareholders, Freeman (1984) defines stakeholders more broadly as each group or individuals who may influence or be influenced by the achievement of corporate objectives. This theory usually used as the grand theory for the researchs of the adoption of Corporate Social Responsibility (CSR) in the organizations. So, in this research, the author also uses this stakeholder approach as its grand theory.

An organization is generally encouraged to adopt CSR because CSR can enhance the performance of macro and micro. Macro performance related with environment improvement and reduction of social nonconformity. Whereas, CSR enhances micro performance related with reputation, potential to charge a premium price for products as well as the enhanced ability to recruit and retain high-quality workers (Ortas et. al., 2015). It is also supported by Kumar (2018) finding that CSR activity enhances brand image and reputation and has a positive association with innovation, operation, and stakeholder relations.

Non-profit organizations implement CSR for their non-profit activities for the welfare of communities beyond their economic interests (Carroll and Shabana, 2010). Although it is considered as “doing well by doing good”, it has an economic value and can be lead to get competitive advantage in the long run. Usually, non-profit organization gives CSR activities to the society is not to be related with profitability motive, but they pursue CSR initiatives for different motivations (Wu et al., 2015). Many researchers argue that by practicing CSR, organization search for potential benefits (Branco and Rodrigues, 2006; Hart, 1992; and Saridi et al., 2015).

CSR activities can be used as tool to create a positive image of the organization in society that may eventually help them to retain and attract new employees and customers (Jones et. al., 2010). Moreover, CSR activities has become a competitive advantage to organization both profit and non-profit including education institution. As the developer and provider of human resources, education institution also has to intense in the CSR activities to create organization value. At the level of value creating resources, the higher the reputation of the company, the higher the performance of the company (Roberts and Dowling, 2002), the higher the customer loyalty primary: the consumer (Walsh and Beatty, 2007), labor or employee (Chun and Davis, 2010), and investors (Helm, 2007).

Relating to the changing global market changing, university is emphasized to have contribution to the social welfare; then, universities have an increasing social responsibility. Some universities have already created a social responsibility team providing that Social Responsibility (SR) in university is the real and long-term oriented concern (US Fed News Service, 2010 in Dima et al, 2013).

Relating to build linkages with high schools, it can be effectively built by the implementation of Higher Education Social Responsibility (HESR) of vocational higher education for vocational high schools. Here in this article, in the first time, the author propose a new term of Higher Education Social Responsibility (HESR) for social responsibility activity which is done by higher education.

As stated by Dima et al (2013) one of six dimensions in a model of social responsibility in university – high schools/other institutions cooperation.
The examples of HESR activity in term of cooperation with high school are (Dima et al., 2013):

1) Offering to eleventh grade students the possibility to test the university’s environment, by becoming student for two weeks, in order to make the best career choice after their graduation, and

2) Collaboration with the alliance of the Centenary High schools, improving its notoriety among high school students

As a leading vocational accounting higher education in Indonesia, Akademi Akuntansi YKPN has conducted the HESRs. This research focus on those implementation effects relating to a strategy to build effective linkages to high schools. It will be focused on the comparison between those implementation activities and the result of those implementation activities regarding to its sustainable competitive advantage.

The previous research relating with the implementation of HESR concerning the dimension of university – high schools cooperation of Romanian Higher Education was conducted by Dima et al (2013), but, the result of this research has shown not significant ($b = 0.06, p > 0.05$). Contradict with the previous research; the author wants to give new scientific statistical proof that the HESR activities implemented by higher education for partner high schools will affect on increase its student number who came from those partner high schools. So, the research hypothesis of this research relating to the implementation of HESR as a strategy of AA YKPN that can give impact on AA YKPN's sustainable competitive advantage are:

**H1: The AA YKPN’s HESR activities implemented for partner high schools have positif impact on its new student number from partner high schools.**

Veloutsou et al. (2004) mentioned that when choosing a higher education, the characteristics of the area are not important, but the distance in Finland played a more important role when choosing a higher education. Related to Veloutsou et al. (2004) finding, this research considers it as the control variable that may affect the student candidate in choosing the higher education.

### 3. RESEARCH METHOD

In this case study, combination between qualitative and quantitative research methods is used. By this case study strategy, an empirical investigation of a particular contemporary phenomenon within real case using multiple sources of evidences can be done. The case study strategy also has considerable ability to general answers to the question “why?” as well as “what?” and “how?” questions (Mark Saunders et al., 2003:93).

That combination of research methods is conducted in order to answer the research questions:

1. What kinds are the HESR activities as a strategy to build effective linkages with high schools is implemented by Akademi Akuntansi YKPN?
2. What are the impacts of HESR activities as a strategy to build effective linkages with high schools implemented by Akademi Akuntansi YKPN on its sustainable competitive advantage?
The primary data is collected using interview method to the related managements of Akademi Akuntansi YKPN. Then, the secondary data are collected from managements’ reports for the periods of academic year 2010/2011 until 2013/2014. Those secondary data are used to analyze the effect of HESR strategy implemented on the sustainable competitive advantage.

4. RESEARCH DATA AND VARIABLES DEFINITION

For the purpose of this research, the primary and secondary data are needed. For the qualitative method, primary data will be collected from direct interviews with the related managements of Akademi Akuntansi YKPN. This type of primary data is used to answer the research question of what kinds are the HESR activities as strategy to build effective linkages with high schools is implemented by Akademi Akuntansi YKPN.

In this research, the secondary data are needed in order to answer the research question of what are the impacts of HESR activities as a strategy to build effective linkages with high schools implemented by Akademi Akuntansi YKPN on its sustainable competitive advantage. All of the secondary data are collected from managements’ reports for the periods of academic year 2010/2011 until 2013/2014. Here, higher education sustainable competitive advantage is reflected by the number of new students, the number of new students from partner high schools involved in the HESR activities, the number of partner high school involved in the HESR activities, and the percentage of graduates who have GPA >= 3.00 (graduated after 3 academic years).

The secondary data are also needed for research hypothesis testing. Those secondary data are including HESR activities number implemented for partner high school as independent variable and new student number who came from related partner high school as dependent variable. HESR activities number implemented for partner high school is reflected by 1, 2, 3, and so on. While student number who came from related partner high school is also reflected by 1, 2, 3, and so on.

The data about partner high school distance area is also needed as the control variable. The using of distance area related to Veloutsou et al. (2004) finding. They mentioned that when choosing a higher education, the characteristics of the area are not important, but the distance in Finland played a more important role when choosing a higher education. In this research, the distance areas are divided into 3 levels. Those 3 levels are: (1) The area 1 is for partner high schools inside the Yogyakarta City (the city where Akademi Akuntansi YKPN in), (2) The area 2 is for partner high schools in the other cities but still in the same province with Yogyakarta City (inside of The Province of Daerah Istimewa Yogyakarta), and (3) The area 3 is for partner high schools in the other cities and in the other provinces with Yogyakarta City (outside of The Province of Daerah Istimewa Yogyakarta).

5. QUANTITATIVE RESEARCH MODEL

For the quantitative research model, this research is done by analysis of number HESR activities for high schools compare with strategy implemented results. This research also completed by the testing of this research hypothesis mentioned before. The model to test the H1 can be depicted as:
In detail, the quantitative research method in this research is done by analysis of HESR activities number implemented for partner high school compare with strategy implementation results in the term of new students number from came from related partner high school. Therefore, the research model for this research is:

$$NS_{AY+1} = \alpha + \beta_1 N_{HESR.Ac} + \beta_2 Distance\_Area + \varepsilon$$

Notes:
1. Dependent Variable is $NS_{AY+1} = \text{New Student Number Who Came from Related Partner High School at the next academic year from the HESR done}$
2. Independent Variable is $N_{HESR.Ac} = \text{Number of HESR Activities for Related Partner High School}$
3. Control Variable is $Distance\_Area = \text{The Distance Areas that divided into 3 area levels}$.

Using SPSS program, linear regression will be used for the purpose to test that hypothesis. Hypothesis 1 (H1) will be accepted if the regression result is $< 0.05$. If so, the hypothesis 0 will be rejected.

6. RESEARCH RESULT

6.1. Result from Qualitative Method

From the interview with Akademi Akuntansi YKPN managements related with Akademi Akuntansi YKPN HESR activities in order to answer the research question 1 of “what kinds are the HESR activities as a strategy to build effective linkages with high schools implemented by Akademi Akuntansi YKPN”, it is known that those HESR activities mostly have been done in the forms of workshops and seminars. The types of workshops and seminars include computerized accounting workshops, taxation workshops, stock-trading workshop, higher education seminars, etc. Those all types of workshops and seminars are dedicated for students and teachers of high schools in order to get direct effect to build effective linkages with high schools. Than the effective linkages with high schools that have been built hopefully will give impacts on Akademi Akuntansi YKPN sustainable competitive advantage.

6.2. Result from Quantitative Method

After intensive HESR activities for partner high schools, which are started from academic year 2011/2012, the results of those HESR activities are depicted as the table below:

<table>
<thead>
<tr>
<th>HESR Activities Numbers for Partner High School</th>
<th>New Students Number from Partner High School</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>As Control Variable</td>
</tr>
<tr>
<td>Distance Area</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HESR Activities</th>
<th>Numbers for Partner High School</th>
<th>New Student Number from Partner High School</th>
<th>Distance Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The result of HESR strategy implementation mentioned in that table is to answer the research question number 2 of “what are the impacts of current HESR as a strategy to build effective linkages with high school implemented by Akademi Akuntansi YKPN on its sustainable competitive advantage”.

From the table above, it shows a good signal for the success of the HESR strategy implementation by higher education to build the effective linkages with high schools. Because although the HESR strategy to build the effective linkages is not intended to provide “instant” result for Akademi Akuntansi YKPN competitive advantage, but it shows that those HESR activities also give the positive impacts on the short term, the middle term, and the long term. In the short-time (after the intensive implementation in academic year 2011/2012 compare to previous academic year of 2010/2011), when the HESR activities are done from 109 times to 320 times, as the result, new student number for academic year 2012/2013 (as the result of HESR activities in academic year 2011/2012) is 625. This is a significant increasing result compare to 453 for academic year 2011/2012 (as the result of HESR activities in academic year 2010/2011) before the intensification of HESR activities. This increasing trend also happens for the number of new student from partner high school involved in the HESR activities from 124 (27.59%) to 333 (53.28%), partner high school involved in the HESR activities from 56 to 116, and the percentage of graduates who have GPA >= 3.00 (graduated after 3 academic years) from 57% to 63%.

When the number of HESR activities is reduced in academic year 2012/2013 to 196 but it is done for the partner high schools which is the number is added to 134, the result shows a significant declining of new student number to 564 in academic year 2013/2014 (as the result of HESR activities in academic year 2012/2013). The number of new student from partner high school involved in the HESR activities decrease to 303 (52.72%), although partner high school involved in the HESR activities increase to 134, and the percentage of graduates who have GPA >= 3.00 (graduated after 3 academic years) decrease to 56%.

After a significant negative result as the effect of HESR activities reduction in academic year 2012/2013, HESR activities for partner high school is increase again to 213 activities and partner high schools increase to 132 schools in academic year 2013/2014. The result shows a significant increasing again of new student number to 610 in academic year 2014/2015 (as the result of HESR activities in academic year...
2013/2014). the number of new student from partner high school involved in the HESR activities also increase to 346 (56.72%), although partner high school involved in the HESR activities decrease to 132, and the percentage of graduates who have GPA >= 3.00 (graduated in 3 academic years) increase to 66%.

From the analysis of the results relating to HESR activities as a strategy to build effective linkages to high schools that expected to give impact on the Akademi Akuntansi YKPN sustainable competitive advantage, the numbers of partner high schools are increase through HESR activities that have been done for them. It is a good signal and a promising for the future of Akademi Akuntansi YKPN sustainable competitive advantage. This intensive and symbiosis mutualism effective linkages to partner high schools as the primary suppliers that provide their graduates as the primary input for Akademi Akuntansi YKPN study and teach processes is very important to ensure the sustainable supplies of this appropriate primary input (new students), both appropriate in the number and the qualities.

6.2.1. Hypothesis Testing

6.2.1.1. The Descriptive Statistics

In this case study, to test the research hypothesis, 438 samples are observed. The 438 samples are taken from the partner high schools which Akademi Akuntansi YKPN have given the HESR activities during periods of academic year 2010/2011 until 2013/2014. Here, the minimal Number of HESR Activities for related partner high school is 1 whether the maximal is 2 with mean of 1.17 and standard deviation of 0.591. For New Student Number who came from related partner high school, the minimal number is 0 and the maximal number is 28 with mean of 2.53 and standard deviation of 3.514. The last, for Distance Area, the minimal distance area is 1 and the maximal is 3 with mean of 2.35 and standard deviation of 0.724. Below is the table of those descriptive statistics:

<table>
<thead>
<tr>
<th>Variables</th>
<th>Minimal</th>
<th>Maximal</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>HESR_Act</td>
<td>1</td>
<td>5</td>
<td>1.17</td>
<td>0.591</td>
</tr>
<tr>
<td>NS_AY+1</td>
<td>0</td>
<td>28</td>
<td>2.53</td>
<td>3.514</td>
</tr>
<tr>
<td>Distance_Area</td>
<td>1</td>
<td>3</td>
<td>2.35</td>
<td>0.724</td>
</tr>
</tbody>
</table>

Note:
1. N_HESR_Ac = Number of HESR Activities for related partner high school
2. NS_AY+1 = New Student Number who came from related partner high school
3. Distance_Area = The Distance Areas are the cities which are partner high schools there

6.2.1.2. Hypothesis Result Testing
The results of the research hypothesis testing are shown in the table below:

<table>
<thead>
<tr>
<th></th>
<th>Coefficient of Regression</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>2.948</td>
<td>0.000</td>
</tr>
<tr>
<td>HESR_Act</td>
<td>2.137*</td>
<td>0.000</td>
</tr>
<tr>
<td>Distance_Area</td>
<td>-1.247*</td>
<td>0.000</td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td>0.224</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>64.002</td>
<td></td>
</tr>
</tbody>
</table>

Note:
1. Dependent Variable: NS_AY+1
2. * = significant at $\alpha = 1\%$

The coefficient of adjusted R square is 22.4%. It means that the variable of HESR Activities Implemented for Partner High School by Akademi Akuntansi YKPN as that controlled by variable Distance Area affects New Student Number who Came From Related Partner High School by 22.4%. It also means that the other variables that do not included in the model affect New Student Number who came from Related Partner High School about 77.6%.

The testing results of H1: The AA YKPN’s HESR activities implemented for partner high school have positif impact on its new student number from related partner high school; show that the H1 is accepted. From the linear regression, as shown by the table the significant level of 0.000 or it is $< 0.05$. It is also shown that the AA YKPN’s HESR activities implemented for partner high schools have positif impact on its new student number from related partner high schools. This result is contradicive with previous research conducted by Dima et al (2013) that the result has shown not significant ($b = 0.06$, $p > 0.05$).

The regression testing result of Distance Area as control variable shows significant negative impact on New Student Number who Came From Related Partner High School with significant level of 0.000. This result is consistent with previous research conducted by Veloutsou et al. (2004) that when choosing a higher education, the characteristics of the area are not important, but the distance in Finland played a more important role when choosing a higher education.

7. CONCLUSION, LIMITATION, AND SUGGESTION FOR THE NEXT RELATED RESEARCHES

7.1. Conclusion
This study aims to give empirical evident about the effectiveness of higher education social responsibility (HESR) as a strategy to build effective linkages between higher education and high schools on its sustainable competitive advantage. High schools is the primary supplier of new student candidates for higher education, thus, the appropriate HESR activities to be implemented by higher education for high schools are needed to build strong sustainable relationship between them.

The case study using combination between qualitative and quantitative research methods of Akademi Akuntansi YKPN Yogyakarta – a leading vocational accounting higher education in Indonesia - is used for this study. The primary data are
collected from the interview with the related managements and the secondary
data are collected from management’s reports from the periods of academic year

The quantitative method is used by the analysis of HESR activities implemented
for partner high schools compare with for its sustainable competitive advantage. The
sustainable competitive advantage is reflected by new student number, new student
number from related partner high schools, partner high schools number in relation with
HESR activities, and the percentage of graduates who have GPA >= 3.00 for the
related academic years.

From the quantitative research result shows that the number of HESR activities
has positive significant impact on new student number from high schools, new student
number from related partner high schools, partner high school number, and the
percentage of graduates who have GPA >= 3.00 for the related academic years.
Moreover, the hypothesis testing also shows that AA YKPN’s HESR activities
implemented for partner high schools have positive impact on its new student number
from related partner high schools. As addition information, the HESR activities also
enhance new student number that is exceed the yearly target (450 new students in 1
study program).

This research contributes to the analysis of supply chain linkage literature
especially linkages for higher education institution with high schools through the
implementation of HESR as a strategy of higher education to build those effective
linkages. This topic in higher education is very important but very rare had been
researched. This research also gives understanding that the implementation of HESR as
a strategy mention above for higher education will give impact on higher education
sustainable competitive advantage which is not only can be seen in the short term but
also in the middle and also long term.

7.2. Limitation
This research used case study of Akademi Akuntansi YKPN Yogyakarta Indonesia. It
means the data that are used and collected are only taken from Akademi Akuntansi
YKPN. The results of this research also only related to Akademi Akuntansi YKPN. So,
may be cannot be vast generated for other high education institutions.

7.3. Suggestion for The Next Related Researches
Although this research has that such limitation mentioned before, this research model
and research result hopefully can be used as the foundation model for the next related
researches. In order to achieve it, the author proposes 2 suggestions for the next related
researches. Those 2 suggestions including: (1) Using data from some higher education
institutions in one or some countries, and (2) Using additional other variables which
maybe also affect the higher education sustainable competitive advantage. Beware,
those author’s suggestions should be synchronized with the conditions that maybe
different for each higher education types and circumstances.

REFERENCES

the Relationship of Corporate Reputiation with its Antecedent and


