

A STRATEGY TO DEVELOP VOCATIONAL EDUCATION BASED ON PALM OIL INDUSTRY

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Abstract: Participation of local communities as workers in the palm oil industry is quite low and only at the level of casual workers. Most of them (51.49%) work as operators with only primary and junior levels of education (67.95%). Regarding this, the present study aims to develop strategies for enhancing community involvement through vocational education based on palm oil industry. The study was conducted at three locations of palm oil industry centers in South Kalimantan, namely Tanah Laut, Tanah Bumbu, and Kotabaru. The study uses a combination of both quantitative methods (survey) and qualitative methods (FGD). Data has been analyzed using SWOT model. The main strategy in empowering local communities to utilize the employment opportunities in the plantation and palm oil processing industry should improve their competencies through vocational education. Vocational education carried out must be established in the form of partnerships between oil palm plantation companies, government and local communities, as well as local community colleges.

Keywords: Education, empowerment strategy, industry, palm oil, palm oil industry, partnership, and vocational education.

INTRODUCTION

Tight competition in every field of life in today's globalization era requires people to prepare themselves to face and win the competition. One of the key factors of success in today's competition is the availability of competent human resources or skilled labor. The ASEAN Economic Community will make ASEAN a market base and single producer; which in turn will allow ASEAN nations to be more dynamic and competitive with regional integration acceleration on prioritized sectors and with skilled labor and talents (ASEAN, 2008). The need for worker's competence in industry grows as the industry develops. To create high quality workers with competitive advantage, standardized competencies are needed; as set forth in the Decree of Ministry of Labour and Transmigration of Indonesia No 307/2014 (Kemnakertrans, 2014).

The Masterplan of Acceleration and Extension of Indonesia's Economic (MP3EI) is implemented based on the approach of developing economic growth centers, both the existing and the new ones. In Kalimantan, palm oil plantation is the major sector of non-oil and gas industry. It is also the major sector of industry that absorbs the most workers. It is expected that the positive effects of economic

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growth expansion in Indonesia reach all components of society in the nation, including the local people of South Kalimantan (KP3EI, 2013). The development of palm oil plantation in rural areas provides employment opportunities for the people and improves the economy in the areas (Syahza, 2011). The phenomenon in South Kalimantan indicates that the rapid growth of palm oil industry has not touched or improved the prosperity of local people in the surrounding areas of the plantation.

The participation of local people as workers in palm oil industry, both in the plantations and in the processing factories, is relatively low; only 2.18% of local people hold managerial position, only 21.77% and 51.49% of local people work as supervisors and operators, respectively. The workers in operational level (operators) are dominated by those with primary and junior secondary levels of education (67.95%; Budi et. al., 2012). According to Mariana et al (2013), the low participation rate of local people in palm oil industry might spark some kind of social jealousy.

One of the efforts to increase the participation of local people from the surrounding areas of palm oil plantations is by educating, training, and recruiting them as employees. Education is a suitable solution to develop the competencies of human resources (Donald, in Kamidin, 2010). The increase in the roles and participation of local people as educated workers is expected to solve the problems of unemployment and prosperity in the area.

The present study aims to analyze the strengths, weaknesses, opportunities, and threats of local people to participate as educated and skilled workers in palm oil industry.

THEORETICAL FRAMEWORK

Empowerment of People

The concept of empowerment is a critical form of development model which has been considered as the source of social, political, and economic discrepancy in society. Ife (2002) notes that empowerment is an effort to provide opportunities for people to manage the existing resource by increasing their capacities and participation in development process to change their lives to be better. The concept emphasizes the effort to change oneself through empowerment or providing power which can be used in one's actions and can be redistributed to others who do not possess it. In other words, empowerment essentially has to do with how individuals, groups, or communities try to control their own life and shape a future that they wish (Adi, 2003). Suhendra (2006) notes that public empowerment is the act of providing and distributing power to people so that they will be able to take control of all aspects of their life; including politic, economy, education, health, environmental

management, etcetera. Accordingly, empowerment essentially stresses how helpless people are able to develop their power and potentials; external parties only play a role of catalyst that provides opportunities for the people to achieve that goal.

Empowering the people is an endeavor to improve the dignity of the grass root group, so that they will be able to get themselves out of poverty. It means that empowerment is an effort to empower people to be independent and able. According to Payne (1997), the process of empowerment aims to facilitate the people to gain power to decide and define the actions they take, by reducing social influence or personal barrier. This is done through improving capabilities and confidence to utilize available power and through power transfer from the environment.

The primary approach in the concept of empowerment is to make society the subject of development, instead of the object of each development activity or project. Therefore, for empowerment effort to achieve its objectives, it needs a climate that allows the potential of the people to grow and develop. This includes actual work to provide various input, access, and opportunities which will facilitate the empowerment of people; i.e. by trusting them to manage the input and opportunities themselves.

According to Ledwith (2005), there are four dimensions that underlie the empowerment of community: (i) personal empowerment through learning, knowledge, confidence, and skill; (ii) positive actions related to poverty, health, racial, gender, disabilities, and other discriminative issues which undermine the structure of power; (iii) community organization which has to do with the quality and effectiveness of community groups and the relationship among groups and between the groups and external parties; (iv) participation and involvement towards a better change.

One of the endeavors to empower society is done by improving the community's capacity through education and skill development; in accordance with the resources potentials available in their surrounding environment. This is in line with the philosophy of society empowerment; that is to facilitate a community so that they can help themselves. Vocational education based on skill development; such as local resources-based vocational education; is a means to develop society's capacity to be more empowered.

Vocational Education

Law No. 12/2012 on Higher Education stipulates that vocational education is a Higher Education program, from diploma to applied bachelor level, that prepares and equips students for certain works and with certain applied skills. One of the important principles in the implementation of vocational education is that it is based

on local superiority. The workloads of vocational education program are focused on skills and competencies subjects, instead of theoretical subjects. Vocational education is an education that combines skill development and potential local resources management.

Palm oil industry-based vocational education not only increases local workforce absorption in the palm oil plantation or industry; it also increases the involvement and participation of palm oil companies in community education effort. On one hand, the company can help local people to have higher level of education and provide employment opportunities for them in palm oil plantations or industry. On the other hand, the company will also have workers with suitable competencies that it needs. For the people, the involvement of palm oil company in supporting palm oil industry-based vocational education will provide them with opportunities to get education in higher level and to work in palm oil plantation or industry.

In other words, the involvement of the company, community, and government through vocational education will promote the average growth of people's level of education as well as increase the absorption rate of the company for local workers with competencies suitable for palm oil industry. This is in accordance with Sudira (2009) who states that there are three advantages of vocational education: (1) for the students, it is an attempt to improve personal quality, an opportunity to get a job, a chance to be an entrepreneur, and to increase their income; (2) for the industry, it serves as a source of high-quality workers and business improvement; (3) for society, it is a means to improve welfare and national productivity, and to alleviate unemployment.

In developing the 2017 RKP (*Rencana Kerja Pemerintah*/Government's Work Plan), the National Development Planning Agency stipulates that the program of educational development priority through improving the relevance of vocational education is one of the programs that need to be implemented, targeting the availability and provision of structures and infrastructures for 15 state universities, Community College and Vocational Academy (cooperating with regional government), and 250 vocational/skill development institutions. Government's attention and support for vocational education is based on the effort to improve the quality of talented (educated) and skilled workers who will be ready to work and compete in ASEAN Economic Community.

METHODOLOGY

Research Design

The present study combines quantitative and qualitative research designs. The quantitative method is implemented through survey, using questionnaire as the

primary instrument of data collection. The survey is conducted in three regencies in the center of palm oil industry; i.e. Tanah Laut, Tanah Bumbu, and Kotabaru regencies. The respondents of the survey are the people living in the immediate surroundings of palm oil plantation or company. Sample is taken using random sampling technique. Total sample for this study is 150 respondents from five villages (30 respondents from each village).

The qualitative method is implemented using Focus Group Discussion (FGD) technique. FGD is conducted five times during the study, once in each sample village. Each discussion group consists of 6-12 people, purposively selected with consideration to their capability to provide useful input or to participate in the discussion. The participants of the discussion include village officials, community leaders/respected figures, representatives of youth groups, and representatives of female groups. The last FGD involves all interested components of the industry; including the local people from societies near palm oil industry, related institutions, and the palm oil company.

Data Analysis

Data analysis is conducted using SWOT analysis. SWOT analysis identifies various factors of strengths, opportunities, weaknesses, and threats. Strategic decisions to be made will consider the internal factors of strengths and weaknesses, as well as the external factors of opportunities and threats.

According to Bungin (2007), the result of SWOT analysis can be used as an alternative in the implementation of policies. SWOT analysis is a way to know about something in detail and to formulate a strategy according to the result of the analysis (Rangkuti, 2006). To determine or formulate the alternative strategy to be implemented, an SWOT matrix needs to be developed. The matrix includes:

- Strength, in which there are aspects that can be better or stronger. Strengths can be used as advantages to overcome threats.
- Weakness is the limitations and obstacles of progress.
- Opportunitie are various beneficial things and situations as well as tendencies which are sources of opportunities.
- Threats are external condition that are not beneficial and needs to be anticipated and handled immediately.

The SWOT matrix can clearly show how the external opportunities and threats being faced may be adjusted to the existing strengths and weaknesses. SWOT matrix as a tool of such adjustment develops four types of strategy; i.e. SO, WO, ST, and WT, as follows:

SWOT MATRIX ANALYSIS

<i>EFAS</i>	<i>IFAS</i>	<i>STRENGTHS</i> Determine 1-5 factors of internal strengths	<i>WEAKNESSES</i> Determine 1-5 factors of internal weaknesses
<i>OPPORTUNITIES</i> Determine 1-5 factors of external opportunities		<i>SO STRATEGY</i> Create a strategy that employs strengths to utilize the opportunities	<i>WO STRATEGY</i> Create a strategy that employs weaknesses to utilize opportunities
<i>THREATS</i> Determine 1-5 factors of external threats		<i>ST STRATEGY</i> Create a strategy that employs strengths to overcome threats	<i>WT STRATEGY</i> Create a strategy that minimizes weaknesses and avoid threats

Source: Ranguti (2006)

IFAS (Internal strategic factors analysis summary) are the internal strategic factors formulated to integrate the internal factors in the framework of strengths and weaknesses. Meanwhile, EFAS (External strategic factors analysis summary) are the external strategic factors formulated to integrate the external factors in the framework of opportunities and threats.

The next step in formulating alternative strategy is calculating the correlation values of all identified factors (strengths, weaknesses, opportunities, and threats), and putting them in a table to determine the Success Key Factors (SKFs). Referring to the internal (strengths and weaknesses) and external (opportunities and threats) aspects, a matrix is developed to display the relationship of all aspects and their combination. The formulated alternative strategies include:

- S-O Strategy = Quadrant I. This is the most advantageous situation. The strategy implemented in this condition is to promote aggressive growth policies (growth-oriented strategy).
- S-T Strategy = Quadrant II. This is a strategy that uses strengths to overcome threats. This strategy is implemented to use long-term opportunities through diversification.
- W-O Strategy = Quadrant III. This strategy is implemented based on the utilization of opportunities by minimizing weaknesses.
- W-T Strategy = Quadrant IV. This strategy is the least advantageous situation; in which a company has to face various threats and internal weaknesses. This is a defensive strategy that attempts to minimize weaknesses and avoid threats at the same time.

FINDINGS AND DISCUSSION

Strategy for Development of Palm Oil-Based Vocational Education

Despite its relatively new development (first developed in 1980s), palm oil commodity has grown rapidly and has become the primary commodity of South Kalimantan. There are many workers involved in palm oil plantation and industry, and more are needed in the next five years when the plantations are ready for harvest and the CPO processing and its downstream industry is fully operational. This big opportunity of employment potential is not fully utilized and optimized by local people because they are unable to offer the necessary competencies required by the palm oil plantation and industry. Consequently, foreign workers dominate the labor market in the plantation and industry; particularly at middle management level and above. To empower local people so that they can compete for this big opportunity, a special strategy is needed.

Based on the inventory of internal aspects (strengths and weaknesses), the following factors are found:

Strengths

- Support from palm oil plantation companies or industry to develop palm oil-based vocational education.
- There are many Senior High School graduates with potentials to continue their education to vocational schools/colleges.
- There are scholarship programs for local people to continue vocational education in higher level from some groups of palm oil industry and plantation.
- Great number of workers is needed for plantation and factory operation and management.
- There are several agricultural vocational schools in the area of palm oil development centers in South Kalimantan.

Weaknesses

- Local people only work as manual workers or low level management.
- Education level of the people in the surrounding areas of palm oil plantation is relatively low.
- There is no vocational education that specializes on palm oil plantation.
- Vocational high school graduates' interest to continue education to a higher level in the surrounding area of palm oil plantation is relatively low due to the problem of educational cost.
- The level of connectivity between Agricultural Vocational School's education and palm oil plantation companies is low.

Based on the identification of external aspects (opportunities and threats), the following factors are found:

Opportunities

- Palm oil as one of the primary commodities of agroindustry is set forth in the roadmap of South Kalimantan's SIDA.
- The area of palm oil plantation that has operational permit but not yet developed for plantation is very wide (± 250 ribu hektar).
- Palm oil commodity is one of the primary commodities in the national economy development policy (MP3EI) for Kalimantan area.
- The development of palm oil processing industry by private companies; both CPO factories and other palm oil processing facilities.
- Palm oil is future source of food and energy, which means that the industry has wide development potentials.

Threats

- Regional infrastructure (particularly road access to schools) in the area of palm oil development is relatively inadequate.
- Plantation company group in various regions in Indonesia allows for educated worker supply from outside the area.
- The implementation of ASEAN Economic Community enables foreign workers with high competency to enter the industry.
- Workers from outside the area have better capabilities and higher competencies than local workers.
- Stereotype about the importance of family connection to work in palm oil plantation.

In the next stage, all identified factors (strengths, weaknesses, opportunities, and threats) are calculated in terms of their correlation values and are put in a table to determine each's Success Key Factor (FKK). The result of the calculation is shown in Table 1.

TABLE 1: DETERMINING SUCCESS KEY FACTOR (FKK) OF INTERNAL AND EXTERNAL ASPECTS

<i>NO</i>	<i>ASPECT / FACTOR</i>	<i>BF</i>	<i>NF</i>	<i>NBD</i>	<i>NRK</i>	<i>NBK</i>	<i>TNB</i>	<i>FKK</i>
S (Strength)								
1	Support from company	0.15	4	0.60	3.11	0.47	1.07	1.07
2	Potentials of Senior High School graduates	0.12	3	0.36	2.68	0.32	0.68	

<i>NO</i>	<i>ASPECT / FACTOR</i>	<i>BF</i>	<i>NF</i>	<i>NBD</i>	<i>NRK</i>	<i>NBK</i>	<i>TNB</i>	<i>FKK</i>
3	Scholarship program from company	0.10	3	0.30	3.00	0.30	0.60	
4	Large number of workers needed	0.13	4	0.52	2.53	0.33	0.85	0.85
5	Agricultural vocational schools around palm oil plantation center	0.10	2	0.20	1.68	0.17	0.37	
								1.91
W (Weakness)								
6	Local people commonly work as manual workers/low level management	0.08	1	0.08	2.21	0.18	0.26	
7	Low level of education	0.07	2	0.14	2.32	0.16	0.30	
8	No palm oil-based vocational education	0.10	2	0.20	1.84	0.18	0.38	0.38
9	Low interest to continue to higher education due to educational fee	0.05	2	0.10	2.05	0.10	0.20	
10	Low connectivity between schools and plantation	0.10	2	0.20	2.11	0.21	0.41	0.41
								0.79
O (Opportunity)								
11	Palm oil is the primary commodity in roadmap of South Kalimantan SIDA	0.15	3	0.45	1.79	0.27	0.72	
12	Wide area of palm oil plantation yet to be developed	0.10	2	0.20	2.84	0.28	0.48	
13	Primary commodity of MP3EI for Kalimantan	0.15	4	0.60	2.11	0.32	0.92	0.92
14	Wide area of palm oil plantation and its processing industry	0.12	4	0.48	2.11	0.25	0.73	0.73
15	Development of processing industry	0.10	4	0.40	2.37	0.24	0.64	
								1.65
T (Threats)								
16	Inadequate infrastructure	0.05	4	0.20	1.26	0.06	0.26	
17	Widely dispersed plantation groups	0.10	1	0.10	2.16	0.22	0.32	0.32
18	Implementation of ASEAN Economic Community	0.08	2	0.16	1.89	0.15	0.31	
19	Better competencies of foreign/external workers	0.10	1	0.10	2.42	0.24	0.34	0.34
20	Stereotype of family connection in the industry	0.05	2	0.10	1.11	0.06	0.16	
								0.66

Note: BF = Weight of the Factor
 NF = Value of the Factor
 NBD = Weight Value of Support
 NRK = Average Value of Connectivity
 NBK = Weight Value of Connectivity
 TNB = Total Weight Value
 FKK = Success Key Factor

Based on the highest value of FKK, two components of each factor are determined, as shown in Table 2:

**TABLE 2: SUCCESS KEY FACTOR FOR EACH FACTOR
 IN SWOT ANALYSIS**

<i>INTERNAL FACTORS</i>			
<i>NO</i>	<i>STRENGTHS (S)</i>	<i>NO</i>	<i>WEAKNESSES (W)</i>
1	Support from company	1	Low connectivity between schools and plantation
2	Large number of workers needed	2	No palm oil-based vocational education
<i>EXTERNAL FACTORS</i>			
<i>NO</i>	<i>OPPORTUNITIES (O)</i>	<i>NO</i>	<i>THREATS (T)</i>
1	Primary commodity of MP3EI for Kalimantan	1	Better competencies of foreign/ external workers
2	Wide area of palm oil plantation and its processing industry	2	Widely dispersed plantation groups

Considering the internal aspects (strength and weakness) and external aspects (opportunity and threat), a matrix is developed to show the correlation (connectivity) between the internal and external aspects and the combination of those aspects. Strategies to support the development of palm oil-based vocational education are formulated with consideration of the result of discussion with stakeholders; including academics, businessmen, government agencies, and local people in the surrounding areas of palm oil plantation.

Combination of Strength (S) and Opportunity (O)

- SO1: Encouraging local people to develop their palm oil-related competencies
- SO2: Developing palm oil-based vocational education

Combination of Strength (S) and Threat (T)

- ST1: Prioritizing local people in hiring workers
- ST2: Providing training and in-job education for local workers to achieve higher competencies

Combination of Weakness (W) and Opportunity (O)

- WO1: Building partnership and cooperation networks between the company and schools (link and match)
- WO2: Developing education curriculum that refers to the needs of palm oil plantation companies

Combination of Weakness (W) and Threat (T)

- WT1: Developing on-the-field training for vocational school students at palm oil plantations or companies
- WT2: Implementing labor policies oriented to local resources potential

To formulate the grand strategy in SWOT analysis, a calculation is made to determine the quadrant or direction of FKK values combination from Table 1. The result of the calculation is shown in the following figure.

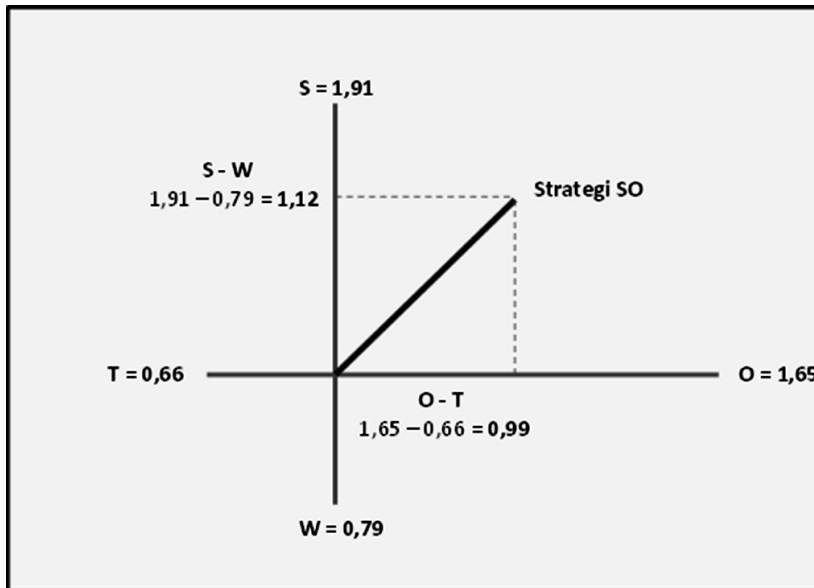


Figure 1: Determining Grand Strategy of SWOT Analysis for Development of Palm Oil-Based Vocational Education

From Figure 1, the grand strategy to be implemented is the SO strategy:

- Encouraging local people to develop their palm oil-related competencies
- Developing palm oil-based vocational education

Direction for Policies on Palm Oil-based Vocational Education Development

The empowerment of local people to take the job opportunities in palm oil plantation and industry should be performed through developing their competencies. It is

important because the middle and upper levels of operation and management in palm oil plantation and processing industry require not only experience, but also high quality of technical and managerial skills.

The development of palm oil-based vocational education is implemented because the available potentials of natural and human resources are sufficient to support it. This strategy facilitates the effort to increase local people's welfare as well as enables palm oil plantation or processing factory to satisfy their needs of qualified and skilled workers.

In general, there are several operational strategies that support the grand strategy of palm oil-based vocational education development. The operational strategies include:

- Development of palm oil-based vocational education in the centers of palm oil development in South Kalimantan
- Building cooperation and partnership for curriculum development with local universities and plantation company
- Building cooperation with plantation company and palm oil processing industry to send students from villages around the plantation area for educational purposes
- Building cooperation with palm oil plantation companies and processing industry as a place for on-the-field learning for university students.
- Building partnership between regional government and plantation company and processing industry of palm oil for providing scholarship for local students with good achievement to have palm oil-based vocational education.

CONCLUSION

The strategy for local community empowerment through palm oil-based vocational education is implemented by: (1) encouraging local people to develop their palm oil-related competencies; (2) developing palm oil-based vocational education; (3) building cooperation with palm oil company; and (4) building partnership between regional government and palm oil plantation company.

The form of palm oil-based vocational education is adjusted to the condition of human resources available in the site of the study. It can be D1, D2, or D3 (Diploma 1, 2, or 3) levels of education. It is because the human resource potentials and the need of companies in each site of the study are different. Vocational education in the form of Community Academy (Community College) is more suitable because this form is relatively more flexible in its implementation and because it involves society's, government's, and companies' participation.

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