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The Role of Referral Vocational High Schools in Developing Regional Potential

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Abstract:

Indonesia, especially South Sulawesi province has excellent regional potential. Processing of such excellent potentials requires skilled workers so the potential can provide economic benefits for the community. The government needs to prepare Vocational High School that is able to support the regional potential. Therefore, Vocational High School is required to develop based on the characteristics and advantages of each region because South Sulawesi has diverse and abundant natural resources and the plural of development sectors i.e. primary sector (agriculture, plantation, fishery), secondary sector (industry, company), direct services sector (bank, transportation) or indirect service sector (consultant, advisor). The nature and characteristics of Vocational High School provide a unique challenge for schools and the managers. Vocational High School requires workshops, equipment, tools and materials. The development of Vocational High School direction in South Sulawesi SMK needs to pay attention to the following matters: (1) the development of the Vocational High School need to take into account the competency skills, it aims to meet the needs of the labor market with the main priority is the local labor market so that it can spur growth in the regional. Support for regional potential in South Sulawesi provides a great opportunity for the development of Vocational High School in South Sulawesi as a user of Vocational High School graduates especially in the provision of skilled workforce considering that many of the regional potential have not been fully managed properly; (2) it is necessary to integrate the regional potential with schools in this case the curriculum and its implementation in learning. The regional potential can be developed effectively through educational or learning processes of various types and levels of education. Especially Local Excellence Based Education in Vocational High School is an educational process implemented in the learning program held on Vocational High School in accordance with the needs of the region, by utilizing various natural resources, human resources, geographic, cultural, historical and other regional potential that useful in the process of developing competencies in accordance with the potential, talent and interests of learners. Learning development based on the regional potential and its implementation in learning in Vocational High School either in the form of individual subjects (monolithic) or integrated in the subjects.

Keywords: regional potential, Vocational High School, skills competence, local excellence-based education

1. Introduction

Indonesia is a country with large regional potential, it can be seen several sectors such as fisheries sector where each year is estimated to be able to produce fish of 6.4 million tons. Production in agriculture sector is only used by 70%. The development direction for the regional potential of marine and fishery areas in Indonesia is grouped into five industries, namely fishery industry, mineral industry and marine energy, maritime industry, shipbuilding industry, shipping industry (marine transportation) and tourism industry (marine tourism and conservation area) while on the export side, the mainstay in the fisheries sector is shrimp and tuna fish (Ministry of State Secretariat, 2017). The potential of other abundant areas also comes from agriculture, forestry, fishery, animal husbandry, plantation, mining and energy both from flora and fauna and from the hydrographic sector contained therein.

Other sector is plantations with leading commodities in agriculture or crops such as rubber, coffee and Crude Palm Oil (CPO). Indonesia is the world's second largest rubber producer with total production of 3.04 million tonnes, the first position being Thailand with total production of 3.5 million tonnes in 2012. Rubber production also contributes to world rubber production of 24.8 %. Coffee production also places Indonesia as the fourth largest producer in the world with production of

360 thousand tons (6.8%) after Brazil (26.6%), Vietnam (23.2%) and Colombia (7.9%) (Ministry of Trade, 2014). The area of Indonesia's oil palm plantations in 2012 is 9.074 million and put Indonesia as the second largest CPO producer after Malaysia (Nasution et al, 2015).

Indonesia is also rich in mineral resources such as tin, copper, gold, bauxite and nickel (Ministry of Energy and Mineral Resources, 2012). Indonesia is known as the largest exporter of Liquefied Natural Gas (LNG). Data released by the Ministry of Energy and Mineral Resources (2013) shows Indonesia's gas exports reached 1,066 BCF or 32% of total Indonesia gas production in 2012 which consists of 707 BCF LNG and the rest is piped gas intended to Singapore. Indonesia's LNG exports in 2012 account for about 7.6% of the world's total LNG exports, making Indonesia the world's third largest exporter of gas after Qatar and Malaysia, and almost 70% of Indonesia's LNG consumers are Asian countries such as Japan (20.8%), South Korea (30.6%), China (8.1%), Malaysia (6.3%) and the rest is aimed at countries in the Americas. Income from oil exports has brought the greatest foreign exchange for the country.

Indonesia's forest potential is also very promising from the economic side. Indonesia's forests are based on their functions, divided into four types, namely protection forest, production forest, nature reserve forest, and tourforest. Forestry production in the form of forest timber, logs, sawn timber and plywood. The mainstay of forest products in the form of plywood is for export activities. In addition to this potential, the increasing demand for food products, the position of food crops is also still seen as a strategic commodity, political, economic, so it is necessary to increase the productivity of its workforce. In addition, activities that are oriented to the development of human resources and institutional capacity, especially farmers will continue to be a priority, given the still low quality of agricultural human resources (Ministry of Agriculture, 2015).

South Sulawesi is one of the 34 provinces in Indonesia. South Sulawesi is known as the gateway of Eastern Indonesia region which is the main node to connect between the region of Eastern Indonesia. South Sulawesi has a strategic role in supporting Eastern Indonesia region as a center for the production and processing of agricultural, plantation, fishery, and nickel mining products, particularly as a food agriculture node, fishery node and industrial cluster. South Sulawesi has an international port that increasingly enhances its strategic position (Provincial Government of South Sulawesi, 2015).

Astronomically, South Sulawesi is located between 0° 12' North Latitude and 8° South and between 116° 48' - 122° 36' East Longitude and traversed by equator or equator line located at latitude 0°. Based on its geographical position, South Sulawesi Province has boundaries: North - Central Sulawesi Province; South - Flores Sea; West - Makassar Strait and West Sulawesi Province; East - Bone Bay and Southeast Sulawesi Province (BPS Sulawesi Selatan, 2016). South Sulawesi consists of 24 regencies / cities with an area of 46,083.94 (Central Bureau of Statistics, 2013).

The biggest contributors to South Sulawesi's GRDP are agriculture, forestry and fisheries totaling 78,558.81 billion; industry totaling 47,185.16 billion; large and retail trade totaling 43,788.67 billion; construction totaling 42,181.43 billion; mining and quarrying totaling 23,347.56 billion. In terms of export, South Sulawesi's largest export contributor in 2015 was nickel sector which reached 56.1% of total export of 1,409 million USD (Central Bureau of Statistics, 2016).

The highest education-based labor force structure, the proportion of the workforce in South Sulawesi with a minimum secondary school diploma has increased from 34.98% in 2012 to 40.69% by 2015. The labor force with primary and junior high school still dominates the labor force in South Sulawesi although the increase tends to decrease. Improving the quality of the workforce is a valuable asset to support the regional potential (Provincial Government of South Sulawesi, 2015).

Based on the data of the number of manpower and the regional potential owned, Vocational High School faces considerable challenges related to the regional potential that is how to do the development of Vocational High School based on the regional potential. The government needs to prepare Vocational High School that is able to support the regional potential as economy potential and employment in the region. Therefore, Vocational High School is required to develop based on the characteristics and advantages of each region, this is because Indonesia has a rich and abundant natural resources and diversity of sectors development, both primary sector (agriculture, plantation, fishery), secondary sector (industry, company), direct services sector (bank, transportation) or indirect service sector (consultant, advisor).

In connection with that problem, a special policy related to the development of Vocational High School as a consequence of a paradigm shift towards vocational education is absolutely necessary. The Indonesian government has issued three main policies related to the development of national education, namely: (1) equity and expansion of access to education is done, among others, by equity and expansion of access to Vocational High School tailored to the needs and local advantages, expand the capacity of education units and provide opportunities same for all learners from different social groups, socially, economically, gender, residence location and intellectual ability level and physical condition; (2) improving the quality, relevance, and competitiveness of Vocational High School is done, among others, by developing a local excellence based school which is done gradually in every district/ city, development of competence of educator and staff and improvement and development of facilities and infrastructure; (3) strengthening governance, accountability and public imaging (Ministry of Education and Culture, 2007).

Based on that, Indonesian government to develop especially in Vocational High School, one of which is to establish new Vocational High School. Each region is now required to organize and arrange the suitability between the skill competencies in Vocational High School with the regional potential in each region. The local government has the duty to prepare, organize, perform, and evaluate the suitability of the proportion of the Vocational High School, it is expected to pay attention to the characteristics of each region then region does not make mistakes either in terms of determining the amount,

type, skill competencies, financing, management, quality control up to its existing evaluation in Vocational High School. One aspect that should be of concern is expected that the existence of Vocational High School is able to optimize the potential of the region as well as increase the employment opportunities of graduates which in turn can increase economic growth in the region. This is because if we want to build a Vocational High School, it requires resources that is not small when compared with senior high school.

The objectives of Vocational High School establishment are: (1) to prepare learner to be productive human beings, able to work independently, fill vacancies in the business and industry world as middle-level workforce in accordance with skill competencies of the chosen; (2) prepare learners to be able to choose a career, tenacious and persistent in competing, adapt in the work environment, and develop a professional attitude in the field of interest expertise; (3) equipping learners with knowledge, technology, and art, in order to be able to develop themselves in the future either independently or through higher education levels and (4) equipping learners with competencies in accordance with the chosen skill competencies. Based on that, Vocational High School is in an important position in preparing its students to produce a skilled workforce.

In accordance with the purpose of Vocational High School is to produce graduates who are ready to work, the Vocational High School is required to have special characteristics that distinguish it from other education. The characteristics must be in accordance with the demands of business and industrial world so as to provide benefits and impact for Vocational High School graduates to become skilled workers in their field. Characteristics that must be applied to Vocational High School is to equip students with a variety of cognitive skills (academic) and technical skills (vocational) and equip it with a various of integrated necessary soft skills (attitude, soft skills, employability skills, or generic skills) in shaping student competence to work on the chosen field (Sudjimat, 2014: 21) including the use of digital technology that can enhance the relevance of content and learning processes (Australian National Curriculum Board, 2009). All these things make vocational education more expensive than other types of education (Boateng, 2012).

Demand for skilled labor force is increasing from year to year, so skills development of Vocational High School students is crucial to improve growth and competitiveness because skills can improve productivity that can ultimately drive innovation. The nature and characteristics of Vocational High School provide a unique challenge for schools and their managers. Vocational High School requires workshops, equipment, tools and materials. Subjects in Vocational High School need to allocate enough time in order to achieve the learning objectives. Assessment methods on Vocational High School, especially the assessment format require training for assessors who can assess the competencies of students in the classroom and at work. All these things make vocational education more expensive than other types of education (Billet, 2011), whereas according to Schneider et al (2007: 34) vocational education is characterized by willingness to accept, flexibility and continuous change.

The government through the Directorate of Vocational Education conducts quality development through the Referral Vocational High School cluster. Referral Vocational High School developed is part of the regional-based quality improvement program in Indonesia (provincial, district / city) in addition to each Referral Vocational High School will also be a leader in developing the quality of Vocational High School and at least have 3 Vocational High School alliances to be fostered (Directorate of Vocational High School Development, 2016). The background of Referral Vocational High School establishment are: (1) 2/3 of Vocational High School in Indonesia is Vocational High School with small and limited access either in the form of facilities or in the number of study group, even though Vocational High School graduates with small and limited access affect the quality of Referral Vocational High School as a whole; (2) vocational education requires a very expensive investment because it requires facilities and infrastructure that is always up to date with current technological developments so that if every Vocational High School wants to be developed individually to achieve the eight national education standards in Indonesia then it takes a very large funding, to overcome the problem, it need the existence of investment optimization strategy provided, either to Vocational High School with limited access or to Vocational High School with good access (Suwithi & Sadbudhy, 2014).

2. Method

Identify the regional potential using Location Quotient (LQ) analysis method (Ansofino, 2012; Kesuma & Utama, 2015; Purwanti & Atmanti, 2008; Widianingsih, et al, 2015). LQ is an approach used to measure economic conditions that lead to the performance of a region's economic base. The LQ analysis method is used to identify potential economic sectors/sub-sectors to be superior to a region and used to identify comparative advantages that will encourage the development of other sectors/sub-sectors in a region (Dedifu, 2015, Tian, 2013).

LQ is calculated by measuring the concentration of an economic sector activity in an region compared to its role in the regional economy with the role of similar economic sector activities in the regional or national economy (Christofakis & Gkouzos, 2013; Widianingsih, et al 2015).

$$LQ = \frac{y_i/y_j}{Y_i/Y_j}$$

Explanation:

y_i = GRDP of sector/sub sector in regency/city j

y_j = GRDP total of regency/cities j

Y_i = GRDP of province sector/sub-sector

Y_j = GRDP of total province

Interpretation of the formula is as follows:

(a). $LQ > 1$, means the sector/sub-sector in the region is a base/potential sector.

(b). $LQ < 1$, means the sector/sub sector in the region is a non-base/potential sector.

(c). $LQ = 1$, means that the sectors/sub-sectors in a region are used up by the region where the sectors/sub-sectors are only able to serve the market in the region or have not been able to market the results of those sectors/sub-sectors out of other regions.

3. Result and Discussion

The study of the regional potential is done through data collection of GRDP by 2015 business field for all regencies/cities in South Sulawesi, amounting to 24 regencies/cities. The economic growth of a region is measured by the size of the GRDP, if the GRDP of a region is high, it indicates the region is progressing in the economy (Dedifu, 2015). The change in the growth of the GRDP depends on several factors such as changes in labor force, capital, investment and natural resources available in a region (Aziz, 2017) so that it can be said that GRDP is used to see the productivity or economic growth of a region comprehensively so that by referring to GRDP data then it will be seen the sectors that become growth driving force of a region.

These growth-driven sectors that become the potential sector of a region. The data of GRDP used in Indonesia covers 17 sectors, namely: (1) agriculture, forestry and fishery; (2) mining and excavation; (3) processing industry; (4) procurement of electricity and gas; (5) water supply, waste management, waste and recycling; (6) construction; large and retail trade; (7) car and motorcycle repairs; (8) transportation and warehousing; (9) accommodation, eating and drinking; (10) information and communication; (11) financial and insurance services; (12) real estate; (13) company services; (14) government administration, defense and compulsory social security; (15) educational services; (16) health services and social activities; (17) other services. The existing GRDP data in each district/city in South Sulawesi will be used as a tool to map the existing potential sectors.

Based on the results of the mapping of the regional potential in 24 regency/cities in South Sulawesi using LQ method it is seen that: (1) there are 15 districts where agriculture, forestry and fishery sectors are the main leading sector. The regency are Selayar, Bulukumba, Bantaeng, Jeneponto, Takalar, Sinjai, Barru, Bone, Soppeng, Sidenreng Rappang, Pinrang, Enrekang, Luwu, Tana Toraja and North Luwu; (2) there is one regency where the real estate sector is the main leading sector. The district is Gowa; (3) there is one regency where the transportation and warehousing sectors are the main leading sectors. The district is Maros; (4) there are 2 regencies / municipalities where the industrial sector is the main leading sector. The regencies/cities are Pangkep and Makassar; (5) there are 2 regency where the mining and excavation sectors are the main leading sectors. The districts are Wajo and East Luwu; (6) there are 2 regency where the major trade and retail sectors, car and motorcycle repairs are the main leading sectors. The districts are North Toraja and Palopo; (7) there is one regency where the sector of accommodation, eating and drinking is the main leading sector. The district is Pare-Pare.

4. Conclusion

Based on the results of the analysis of regional potentials conducted using LQ method, the development of the direction of Referrals Vocational High School in South Sulawesi must follow the following matters: (1) the development of Referrals Vocational High Schools need to pay attention to the existing skill competencies, it aims to meet needs of market manpower with main priority is the local manpower market that can spur growth in the region. Support for regional potential in South Sulawesi provides a great opportunity for the development of Refferal Vocational High School in South Sulawesi as a user of Refferal Vocational High School graduates in South Sulawesi especially in the provision of skilled workforce considering that many of the existing regional potentials have not been fully managed properly; (2) it is necessary to integrate the regional potential with schools in this case the curriculum and its implementation in learning. Regional potential can be developed effectively through educational or learning processes of various types and levels of education. Especially Local Excellence Based Education in Refferal Vocational High School is an educational process implemented in the learning program held on vocational high school in accordance with the needs of the region, by utilizing various natural resources, human resources, geographic, cultural, historical and other regional potential useful in the process of developing competencies in accordance with the potential, talent and interests of learners. The development of learning based on the regional potential and its implementation in learning in Refferal Vocational High School either in the form of individual subjects (monolithic) or integrated in the subjects.

Indonesia uses 2013 curriculum that can now be used as a reference in the implementation of education, competence to be implanted in learners, has not led to the realization of learning based on the regional potential as expected. There are several things that should be used as a foothold in the development of learning that is the attachment to the curriculum that is currently enacted i.e. 2013 Curriculum. In 2013 Curriculum presented Core Competence and Basic Competence that must be mastered by learners. The next attachment is the material developed must pay attention to meaningfulness, selection and

needs based on the regional potential. The last attachment is an evaluation used to measure learning outcomes, learning progress and learners' performance.

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