

Relevance of Refferal Vocational Education Development with Region Potential

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Abstract. Every region in Indonesia, in the context of refferal vocational education development has the authority in determining the development policy of refferal vocational education program that suitable with the superior potential of each region. Refferal vocational education program is directed to produce a productive workforce or human resources and able to utilize the region economic potential so that in the long term will increase the independence of the region. Refferal vocational education function is also related to the provision of region economic driving force, where refferal vocational education is expected able to open broader thought for the graduates of refferal vocational education, so the graduates can develop their potential in producing and marketing the goods and services in accordance with the region potential. To achieve this objective, the mapping of the region potential needs to be done as an indicator in developing refferal vocational education where the determination of refferal vocational education skills program development needs to be considered and adjusted to the region potential. It is intended that the existence of refferal vocational education really useful for the region in advancing and developing its potential. The sectoral development approach that has improved the quality standard of Indonesian human resources to a certain extent, in the future needs to be followed by a development approach that takes into account the condition and aspirations of the region, not by a uniform approach. Human development strategies in the future should be able to identify the types of education and training that can place the workforce and educated graduates in job market that constantly demand skill improvement.

1. Introduction

Indonesia is a country with huge potential both from natural resources potential and demographic potential in the form of human resources. The great potential needs to be managed well in order to provide great benefits, especially for the surrounding communities. Human resources has an important role in order to the potential can be managed properly, one of which is the improvement of the education graduates quality. Refferal vocational education has a strategic role in the provision of human resources related to the duties and functions.

Refferal vocational education as an integral part of the economic sector that plays a role in supporting the economic growth of a nation so that refferal vocational education needs to be developed both in quantity and quality. Refferal vocational education both locally and nationally play a role in reducing the unemployment index [1]. Refferal vocational education quality reflects the quality of Indonesian workforce that needs to be developed to improve the Indonesian human resources competitiveness.



Refferal vocational education is one of the secondary education level that has the specificity to produce skilled labor, so it is expected the graduates have the readiness to work. Refferal vocational education graduates must be able to adjust to the development trend, especially the region development by looking at the potential of each region where the refferal vocational education is located.

Based on research conducted by Slamet [2], there are several problems related to refferal vocational education namely: (1) refferal vocational education less responsive to the dynamics of economic development at the local, national, regional and international levels. The potential of the local economy, the richness of natural and cultural resources, and regional and global competition have not been responded to quickly and appropriately so that the role of refferal vocational education as the producer of labor has not been optimal in economic development; (2) refferal vocational education relevance with the needs of the work world has not been maximized. The results of refferal vocational education services have not been as expected, as indicated by the relatively higher rate of vocational education graduates unemployment compared to senior high school graduates ie 6.95% for senior high school and 9.84% for vocational education in February 2016 [3]. Dissonance between the work world and the quality of vocational education graduates is one of the factors that encourage the low absorption of vocational education graduates in the work world [4]; (3) the programs offered by vocational education are not yet effective and efficient which can be seen from the inconsistency of the competency structure of vocational education expertise by considering: (a) manpower demand aspect (labor needs profile) and not just social demand (public interest); (b) occupational and prerequisites analysis data; (c) feed back tracer study; and (d) mapping the region potential around vocational education.

The problems that shown from that research results will have an impact on vocational education graduates who are unable to contribute to the strengthening of local/region economic sector and national economy. An alternative solution that can be used to solve that problem is the re-engineering paradigm shifting of skill competency structure at the school level rather than relying on social demand approach (based on public interest) to man power demand approach. The argument is that social demand approach (based on public interest) is feared to produce graduates with competence profiles that are not actually required by available employment [5].

2. Concept of Refferal Vocational Education

Each region has its own potential. The potential is influenced by geographical factors and the availability of human resources, so that vocational education is expected to encourage region economic growth through the utilization of the potential of both natural resources and other resources. Utilization of the region potential as the basis for the education development and expansion should be seen from three main aspects, namely: (1) geographical potential that includes natural resources, territory location, and artificial resources; (2) cultural factors, moral values beliefs, and norms that determine the personality of the community; and (3) the social, economic, and progress level conditions of the community [6].

The Master Plan for the Acceleration and Expansion of Indonesia's Economic Development (MP3EI) for the 2011-2025 period divides the development of region economic potentials in six economic corridors covering Sumatra, Java, Kalimantan, Sulawesi, Bali- Southeast Nusa and Papua-Maluku. MP3EI has created economic themes/maps that will be developed through these six economic corridors based on the advantages and strategic potentials of each region. Mapping of six existing economic corridors can be referenced in the vocational education development in this case referral development that refers to the advantages and strategic potential of each region.

Related to the development of vocational education, the government has made various efforts such as facilitating the establishment of new vocational education. Every region in the era of region autonomy is now required to organize in order to meet the suitability between competencies in vocational education with the potential of the region so that each region has the task to arrange, set, organize, and evaluate the suitability of the vocational education proportion, it is expected to pay

attention to the characteristics of each region then each region does not make a mistake in terms of determining the number, type, department, competency skill, management, financing, quality control until its evaluation. This is because to build a vocational education required resources and funds sources are not small. One of the important aspects to note is how the presence of vocational education is able to optimize the potential of the region as well as increasing graduates job opportunities which ultimately can increase region economic growth.

The government has made several steps related to the improvement of the vocational education graduates quality. The the strategic plan of the Ministry of National Education [7], related to the policy strengthening program of the Ministry of Education and Culture with the medium-term development plan of National Development Planning Agency specifically for secondary education is the development of schools based on local potential in each district/city, followed by the development of refferal vocational education based on regulation of the culture minister No. 22th of 2015 on Strategic Plan of the Ministry of Education and Culture of 2015-2019 with target number of Referral Vocational education in 2015 amounted to 117 schools and in 2016 amounted to 375 schools of the total number of vocational education 12,659 consisting of 3.320 public vocational education and 9.339 private vocational education with a total of 1,631,511 students consisting of 693,866 students of public vocational schools and 937,645 students of private vocational schools [8].

The government through the Directorate of Vocational Education conducts quality development through the refferal vocational education cluster. Refferal vocational education developed is part of the region-based quality improvement program (provincial, district / city) in addition to each refferal vocational education will also be a leader in developing the quality of vocational education and at least have three vocational alliances to be fostered [9]. The background of refferal vocational education establishment is: (1) 2/3 of vocational education in Indonesia is refferal vocational education with small and limited access either in the form of facilities or in the number of study group, even though vocational education graduates with small and limited access affect the quality of vocational education overall; (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 education wants to be developed individually to achieve the eight national education standards it requires huge funding, to overcome that problems, it need investment optimization strategy, either to vocational education with limited access or to vocational education with good access [4].

Refferal vocational education is a vocational education that has advantages in various aspects so that can be used as a reference for other vocational education. refferal vocational education is an effective school that has superior performance, great access, and effective in managing the institution and accompanying three or four vocational education alliances that having smaller scale with a location that is not far apart in an area in the implementation of quality learning process. The function of the refferal vocational education is: (1) guide, facilitator, mentor; (2) access to facilities, data, information, teaching materials and industrial networks; (3) training, evaluation and imaging; (4) innovation, and joint products; (4) collaboration in the making of teaching aids tools; (5) certification and enforcement of standards while the objectives of the refferal vocational education are the improvement of quality, accessibility, effective as a quality assurance, and willing to share resources [9].

The criteria for becoming a refferal vocational education as mentioned by the Directorate of Vocational Development are: (1) having learners > 1000 students; (2) a sufficient number of productive teachers (> 75); (3) ready to develop land > 5000 m²; (4) industrial cooperation network > 100 industries; (5) having good basic facilities; (6) having a strategic school location; (7) good performance, especially in the work field, and national exam; (8) having facilities and capability as a competency test; and (9) the students have good character [9]. This criterion became the initial basis in the determination of the refferal vocational education and is used in general. If we linked with economic potential including large natural resources and also refers to presidential instruction no. 9th of 2016 which instructed each province to develop at least one potential region potential based refferal

vocational education, it is necessary to develop the criteria of Vocational Referral based on the region's superior potential [10].

3. Referral Vocational Education and Region Potential

Such a large economic potential needs to be managed well in order to provide maximum benefits. Indonesia must have the ability to manage the various economic potentials, so that it can provide prosperity for the community. In this case human resources plays an important role in managing economic potential, because the superior human resources are the key to competitiveness. One of the obstacles in the management of economic potential such as agriculture sector is the problem of human resources in which the quality of human resources in this sector is generally still relatively low, about 72.6% of the agricultural workforce is only educated in primary school or even no school at all [3]. This can lead to obstruction of technological innovation transfer in the agricultural sector because the agricultural sector tends to move toward new innovation and technology systems with increasing demands for efficiency and productivity, requiring educated and skilled labor [11]. Another research conducted by Setiawan [12] on human resource competence related to the utilization of maritime potency in Tasikmalaya district also found the same thing that there is a mismatch between the required competence and the potential of marine available.

Data from the Ministry of Education and Culture [4] show that there is a shortage of educated workers, especially in three sectors which are the advantages of Indonesia, namely tourism, agribusiness and fishery and marine.

Table 1. Comparison of Labor Needs with Vocational Education Graduates

Field	Needs	Graduates	Deficiency (-) /Excess (+)
Technology and Engineering	638.652	445.047	193.605(-)
Information and communication technology	327.813	277.545	50.268 (-)
Tourism	707.600	82.171	625.429 (-)
Health	68.245	60.944	7.301 (-)
Agribusiness	445.792	52.319	393.473 (-)
Art and Craft	81.813	10.017	71.796 (-)
Fisheries and Marine	336.429	17.249	334.7048 (-)
Business and Management	119.255	348.954	229.699 (+)
Performing Arts	6.300	2.000	4.300 (-)

(Source: Ministry of Education and Culture, 2015: 142)

The data further reinforce that immediate improvement needs to be made in the provision of skilled labor in the economic sectors that are the Indonesia superior. Vocational education development is associated with the government's policy on the ratio of Senior High School: vocational education of 70:30, should see the difference of challenge in each region so that productive human resources can be

directed to build its territory. The current trend of vocational education development is still done based on the public interest according to the skill competencies of the current trend and it is not looking at the region potential advantages. Research conducted by Munadi [13] to see the dominant skill competencies associated with the region's superior potentials in three regions i.e Yogyakarta, South Kalimantan and East Kalimantan result finding of the number of skill competency held by vocational education in Yogyakarta, as much as 458 skills competence, South Kalimantan as much as 198 skills competence and East Kalimantan as much as 301 skills competency. The dominant skills competence in Yogyakarta are automotive engineering, computer and network engineering, accounting, multimedia, sales, fashion, and office administration. The dominant skill competencies in South Kalimantan are automotive engineering, computer and network engineering, accounting, multimedia, sales, and office administration. The dominant skills competencies in East Kalimantan are automotive engineering, computer and network engineering, accounting, multimedia, sales, and office administration. The results show that the opening of expertise programs should see their respective potentials of the region, for example in South Kalimantan and East Kalimantan, shipping, fishery and marine, timber, and electrical skills programs should have more quantities than other skills programs.

Data released by the Central Bureau of Statistics [3] also shows the percentage of total labor based on employment in which the agricultural sector still contributes the largest number of labor despite a decline from February 2016 to August 2016 of 0.16% followed by the trade sector then successive community services, commerce, industry, construction, transportation, financial institutions and the last is electricity sectors. Table 2 shows this.

Table 2 Percentage of Labor According to Jobs

Type of Work	2014		2015	
	Aug	Feb	Aug	Aug
Agriculture, Plantation, Forestry, Hunting, and Fishery	32,88	31,74	31,90	
Mining and Excavation	1,15	1,09	1,25	
Industry	13,29	13,24	13,12	
Electricity, Gas and Water	0,25	0,33	0,30	
Construction	7,15	6,39	6,74	
Trade, Restaurants, and Accommodation Services	22,37	23,62	22,54	
Transportation, Warehousing, and Communication	4,45	4,30	4,74	
Financial Institution, Real Estate, Rental Business, and	2,84	2,89	2,98	

Type of Work	2014	2015	
	Aug	Feb	Aug
Company Service			
Community, Social, and Individual Services	15,62	16,40	16,43
Total	100,00	100,00	100,00

(Source: Central Bureau of Statistics, 2016:31)

Based on the data of the labor number who work on the nine sectors of the economy so refferal vocational education faces considerable challenges associated with the region potential that is how to do the development of refferal vocational education based on the region potential. The government needs to prepare refferal vocational education that is able to support the region potential and employment in the region. Therefore, refferal vocational education is required to develop based on the characteristics and advantages of each region, this is because Indonesia has rich and abundant natural resources as well as the plurality of development sectors, both primary sectors (agriculture, plantation, fishery), secondary sector (industry, company), direct services sector (bank, transportation) or indirect service sector (consultant, advisor).

In connection with the above, specific policies related to the development of refferal vocational education as a consequence of the paradigm shift towards refferal vocational education is absolutely necessary where the main policy of national education development should include three things:

- Equity and expansion of access to education are conducted, among others, by equity and expansion of access to vocational education tailored to the needs and local advantages, expanding the capacity of educational units and provide equal opportunities for all learners from different community groups, both socially, economically, genderally, residence location and the level of intellectual ability and physical condition
- Improving the quality, relevance, and competitiveness of refferal vocational education is done by developing a school based on local excellence which is done gradually in every district/city, development of educator and educational staff competence and improvement and development of facilities and infrastructure.
- Strengthening governance, accountability and public imaging (Ministry of Education and Culture, 2007).

4. Conclusion

Based on the exposure already mentioned above, then seen there are some things that need to be underlined namely: (1) Indonesia has abundant natural resources that must be processed and empowered optimally; (2) natural resource processing requires skilled human resources so that the potential of natural resources can be optimally utilized; (3) it is necessary to develop leading refferal vocational education in each region according to local development potential and needs; (4) refferal vocational education present for improvement and equity of vocational education; (5) the duties and objectives of the refferal vocational education are so hard that the refferal vocational education should be a guidance and facilitator for some of its vocational education alliances with the ultimate goal of increasing and ensuring the quality of vocational education.

The development of refferal vocational education based on region potential can be done through three alternatives: (1) development of local content based on region potentials; (2) curriculum strengthening; (3) conformity between existing skill competence with region potential. Knowledge of these excellant sectors in the analysis of the region potential needs to be supplemented by data on critical analysis of economic activity opportunities or businesses that can be developed based on the

key sectors, supplemented by predictions of labor needs and opportunities to develop entrepreneurship skills-based activities.

The first alternative, can be interpreted as a pilot that is developing region potential-based local content subjects. The steps of development are: (1) preparing teacher (can be team by involving practitioners relevant to the region potential); (2) preparing syllabus and lesson plan, (3) preparing learning materials, and (4)) develop learning management patterns and procedures.

The second alternative is the strengthening of skills competency relevant to the region potential. The intended Strengthening emphasis is made on efforts to improve the competence of graduates, in order to be able to capture job opportunities and businesses associated with the region potential, as well as expected graduates to more contribute to increase the region potential. In relation to this matter, the development team of refferal vocational education should perform (1) the analysis of job opportunities and try related to the region potential; (2) to analyze the graduates competency in the field of expertise to be strengthened; (3) to analyze the relevance of productive subjects in relation to the region potential; (4) designing the strengthening of the material on productive subjects, when necessary developing new productive subjects; (5) designing improved management and implementation of learning, and (6) enhancing cooperation with industry refers to its relevance to the region potential.

A third alternative, developing new skill competencies based on the region potential. In contrast to the development of local content subjects and the strengthening of areas of expertise relevant to the region potentials in the first and second alternatives, the development of new areas of expertise based on region potentials requires more complex planning, requiring a larger development team involving stakeholders both from the industry, the education bureaucracy at the provincial level represented by education service, and the university; (2) curriculum development and productive subjects that support graduate competence; (3) preparing teachers (teachers and practitioners); (4) planning of expertise areas management; (5) designing of socialization to the community and recruitment of students, and (6) development of cooperation pattern with industry. The development of new areas of expertise based on the region potential can be done in the refferal vocational education or alliance school in accordance with the size of the opportunity for graduates to capture employment and business opportunities related to the region potential.

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