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### PARTNERSHIP MODEL AS EMPOWERMENT BETWEEN VOCATIONAL SCHOOLS AND BUSINESS WORLD/INDUSTRIAL WORLD

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#### ABSTRACT

This study aims to find a model of vocational partnership development with Business World (BW)/Industrial World (IW) that is suitable to be applied in Indonesia. The model that bridges the partnership relationship between vocational schools and BW/IW is developed based on factual conditions in the field, existing theoretical models and focuses on the concept of link and match between the relevant institutions. Vocational school discussion forums and BW/IW are held as a means of brainstorming between stakeholders. Data collection through open questionnaires is used to hear directly the opinions of stakeholders regarding the expected partnership model. The basis of the model which is used as the basis of the foundation is industrial training, Dual System Education (DSE), Teaching Factory and Work Based Learning. The Vocational School in general provides information on cooperation undertaken which requires open recruitment standards to enter the BW/IW which are clear, legal umbrella regulations from the government. The following models are produced by Industrial cooperation with Vocational Schools, the cooperation model includes three aspects: 1) the needs in BW/IW, 2) the regional ecosystems produced by BW/IW with vocational schools, and 3) the needs of the vocational schools learning process.

**Keywords:** *partnership model, vocational school, business world, industrial world*

## INTRODUCTION

In the business world (BW) / industrial world (IW) requires quality human resources. This needs to be supported by government policies that favor vocational education. Moreover, the challenges of vocational education are still many challenges that must be corrected in several sector lines. The link and match between education and industry needs to be refined, structured and sustainable so that vocational education is strong for Indonesia. Thus, vocational education must be able to realize the goal of learning and practicing the material obtained. This requires the role of the government to provide a constructive policy for the sustainability of vocational education in the future [1].

The policy designed should be in accordance with the needs of Vocational High School (VHS) and BW/IW. The learning process is designed, implemented, and evaluated to resemble the work in BW/IW. Teachers not only teach but get training facilities so that teachers have the skills to teach various competencies to students [2]. Facilities are obtained through collaboration with BW/IW or from the government. Thus, teacher competence can develop and be able to teach students professionally.

The role of BW/IW is very much needed as a vocational partner. The vocational graduates' internship and recruitment program is the target of cooperation undertaken by BW/IW. In addition, BW/IW

as a means of introduction to the world of work, work environment standards, and the latest technological developments [3] provide opportunities for vocational graduates. The conceptual, structured, and sustainable collaboration is the initial capital so that VHS with BW/IW need each other.

However, the collaborative efforts that have been carried out between VHS and BW/IW are still not optimal. This is proven by the fact that there are still many VHS graduates who contribute the highest unemployment rate in Indonesia. The data shows the level of open unemployment (TPT) of 137.91 million in February 2020, up around 1.73 million compared to February 2019. This lift is still dominated by vocational graduates at 8.49% from other levels of education. So, cooperation is still not evenly distributed and the learning process has not fulfilled the needs of the BW/IW [4].

The collaboration that is built is still weak to accommodate VHS graduates. BW/IW still prioritizes graduates who are experienced and have a higher education level than VHS. Besides that, the practice facilities in VHS have not been able to keep abreast of technological developments in BW/IW. Vocational school graduates who tend to be weak in literacy, short-term gains at work, and long-term losses at work [5] are issues that must be followed up on. VHS is not only the aspect of skills but aspects of knowledge and attitude are built so that graduates can be trusted by BW/IW.

A problem that has been explored requires a solution. Regulations that are based on VHS and BW/IW in building a sustainable link and match. So, we need a partnership model between VHS and BW/IW in the empowerment of HR. This study aims to produce an integrated partnership model between VHS and BW/IW in producing quality human resources.

### RESEARCH METHODS

This type of research uses the type of research development (Research & Development). The research and development categories used are only product development research. The selection of product development research is due to the results of research and between the world of education (VHS) and BW/IW based on needs analysis and design models. Meanwhile, research and development based on [6] which consists of four stages: (1) analysis, (2) design, (3) development, and (4) evaluation. The research subjects were teachers and BW/IW parties using random sampling techniques. Data collection through interviews, FGD, and questionnaires. Meanwhile, the instrument used to retrieve data in the form of interviews and questionnaires. Data analysis uses a quantitative approach.

## RESULTS AND DISCUSSION

### 1. Urgency of Cooperation Between VHS and BW/IW

The cooperation between VHS and BW/IW is very important because as a benchmark for the success of student competencies, preparation for entering the workforce, increasing the potential of students in VHS. Vocational School as an institution that prepares labor so that graduates are produced according to the needs of BW/IW. There is a need for collaboration between schools and BW/IW to improve curriculum (synchronize needs).

Improving the quality of students' quality aside from being a place for distributing small and medium scale workers, VHS can also prepare workers according to industry needs. Students take the internship and competency test in order to be able to apply a variety of actual skills in the world of work. Students gain experience and foster confidence in work, so that vocational graduation is absorbed by BW/IW. This pattern is supported by scientific quality according to industry needs [7].

In addition, until now VHS graduates are still needed by BW/IW [8]. This opportunity should be considered as a forum for students, teachers, BW/IW, and the government to collaborate in improving human resources for VHS graduates. Thus, learning in VHS must involve knowledge, factual procedures and the development of vocational identity [9]. So not only rely on aspects of skills but

students are taught knowledge and work attitudes both in practice and while at work.

## **2. Establish cooperation / partnership with VHS with BW/IW**

Vocational Schools with the BW/IW have established good partnerships. This is in line with what was raised by Nurul Lestari, the representative of the Principal of VHS 6 Yogyakarta, namely in the form of industrial practices for students and OJT (On The Job Training) for teachers. In general, the implementation went smoothly in industrial practice, but there were still many who had not yet done the MoU, the results of the FGD with the teachers of vocational high schools in Yogyakarta, one of them was vocational high school Yogyakarta. This collaboration is a form of connecting between career and vocational education [10]. Vocational Schools prepare graduates who meet the needs of the BW/IW while employers and leaders prepare jobs in accordance with the competencies of VHS graduates.

## **3. Cooperation that has been established between VHS and BW/IW**

Various collaborations have been made between VHS and BW/IW including:

- a) Industrial Engineering (industrial work practices)
- b) Recruitment of workforce from vocational graduates
- c) Curriculum development between VHSs and BW/IW needs
- d) Industry visits

e) Scholarships are given by BW/IW to students.

f) Development of teacher competencies

g) Teacher internship

This collaboration includes knowledge competencies, attitudes, and skills. Competency standards are set jointly by schools and BW/IW. Learning uses a project-based learning (PjBL) and problem-based learning (PBL) with a module and jobsheet system. Meanwhile, assessment of training and classroom-based education is carried out by teachers and competency test assessments are carried out by professional certification bodies in Indonesia. Thus, synergic cooperation between the central, regional, vocational and BW/IW governments in the implementation and supervision of vocational education and BW/IW-based training. The government and BW/IW can open jobs according to the potential of natural resources and human resources [11].

## **4. Formulation of Vocational Partnership Model with BW/IW**

Based on the study of several existing models, the factual conditions and FGD with VHS and BW/IW found different levels of needs between VHS and BW/IW. There is an unsynchronization between the needs of BW/IW and those produced by VHS. The location of the asynchronous is evident in the implementation of the patterns. This has been explained by Directorate General VHS in the text of the Guidelines for Vocational Guidance Program Outlining in 2011 which

states there are still many VHS that have not partnered because it is not clear the pattern of educational partnerships with BW/IW. Thus, the vocational curriculum is pursued in accordance with the needs and conditions of the working world [12].

The role of VHS cooperation in the industry is still lacking. This can be proven through focus group discussion (FGD) involving VHS and Industry. During this time, vocational schools in general provide information on cooperation undertaken by the need for open recruitment standards to enter into a clear BW/IW, legal umbrella regulation from the government.

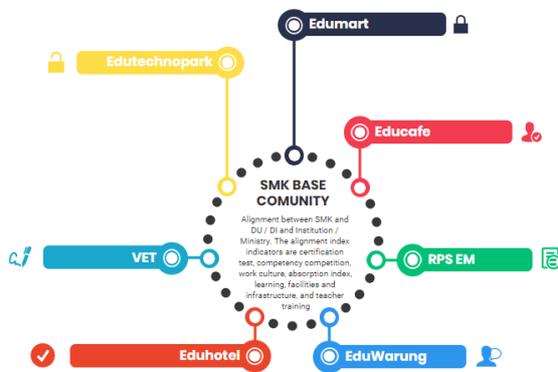


Figure 1. Concept model vocational empowerment region.

The collaboration model covers three aspects: 1) the needs in BW/IW, 2) the ecosystem of the area produced by BW/IW with VHS, and 3) the needs of the VHS learning process. The learning process in the world of education consists of inputs, processes, outputs and outcomes. Input obtained from the selection flow in accordance with the regulations of each school, how much interest in qualified students to register and said accepted or not

by the school. The learning process in schools using the 2013 curriculum emphasizes three indicators: 1) knowledge, 2) skills, and 3) attitude. All three indicators if mastered all become competencies. Output is students capable of mastering competence both academically and non academically with proficiency. Outcomes is how quickly vocational student graduates enter the community to work, both in industry and in entrepreneurship.

**a) The flow of BW/IW cooperation towards VHS**

Human resources in BW/IW include HRD (human resource development), able to improve the quality and competitiveness of companies. Existing human resources continue to be built with basic mentality so that quality awareness develops in every layer of employees from top management to lower level employees. Basic mentality reflects the mental attitude that underlies the way of thinking, how to behave and how to act in carrying out daily work in harmony with the values in the BW/IW encourage the role of industrial development. Research and development or research and development (RnD) activities under R&D in each BW/IW have commercial interests in relation to pure scientific research, and applicative development in applied technology.

R & D works both long-term and short-term objectives to base data material for the next stage of the study, as a prototype trial before mass production, and answer future

challenges with a scientific approach. Workforce requirements in BW/IW produce ecosystem area cooperation involving several stockholders including: 1) between related ministries for example Ministry of Research and Technology, Ministry of Education and Culture, Ministry of Manpower and Ministry of Trade there is a clear and recognized cooperation contract, 2) Association of Industrial companies, 3) BNSP, 4) TUK , and 5) related organizations. The contribution of the BW/IW ecosystem to Vocational Schools in the ecosystem area results in several models of collaboration as follows: 1) CSR (Corporate Social Responsibility, 2) RPSEM (Independent Energy School Development Plan), 3) EDUTECHNOPARK, 4) EDUMART, 5) EDUHOTEL, 6) education and training, 7) certification, 8) facilities, 9) grants, and 10) ecosystems.

**b) The flow of cooperation in the VHS pattern towards BW/IW**

VHS supply to BW/IW covers the required standard of activity including: 1) PBM, 2) Workshop Lab, 3) Character, 4) Climate, 5) Production Unit, and 6) ISO. These six aspects are minimally carried out by VHSs, implementation involvement includes the government, teachers, students, parents, industry, and society.

The learning process in Vocational Schools uses three approaches: 1) multi media, 2) multi methods, and 3) teaching factory. The industrial world is the target of the process and learning outcomes of

vocational schools which have their own characteristics and nuances. Therefore vocational education institutions in the learning process must be able to make the right learning approach in accordance with the wishes of the BW/IW. One of the models produced was teaching factory in the learning process at VHS. The Teaching Factory (TEFA) program is a combination of Competency Based Training (CBT) and Production Based Training (PBT), in the sense that a process of expertise or life skill is designed and implemented based on the actual SOP of work standards. The process of implementing the TEFA model of workshop facilities in accordance with the standard requirements in the BW/IW.

There are six workshop labs that must be competently studied by VHS students related to the needs of BW/IW are: 1) facilities, 2) K3, 5S/5R, ergonomics and ISO. Workshop facilities are supported by Regulation of the Minister of National Education of the Republic of Indonesia No. 40 of 2008 concerning Infrastructure Standards for Vocational High Schools (VHS) and Vocational Aliyah Schools (VAS). The existence of a complete workshop lab center of manufacturing, direct application simulation and metrology makes students happy and comfortable in emphasizing competence. The environment becomes the student's character who is persistent, survive, able to solve problems with a scientific approach to making a competitive cultural climate. The

maintenance workshop lab can become a production unit container at VHS. Implementation of the production unit involves teachers, students with orders.

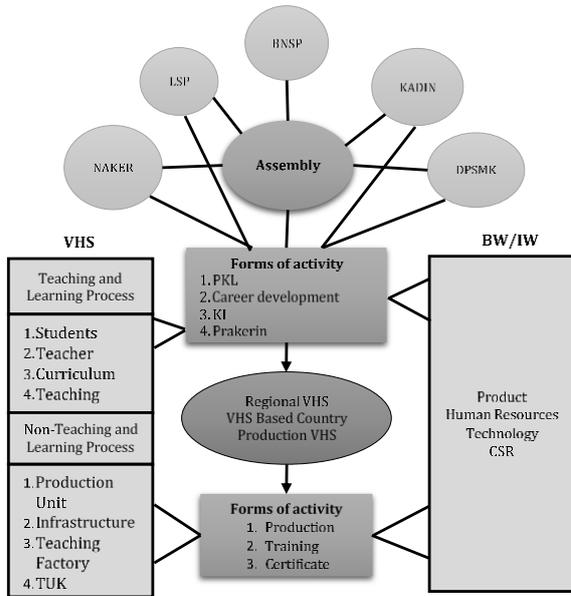


Figure 2. Ecosystem Development Model.

(Source: [13])

The results of models on BW/IW consist: 1) internships, 2) sub products, 3) internship, and 4) graduates. Student internships are deployed to BW/IW according to their respective majors, apprenticeship patterns can be in the form of sandwiches, 3-month continuous vocational standard programs and 4-month Vocational Development (referral) at BW/IW.

Potential VHS to hone skills through Teaching and Learning Process (TLP) in the classroom and Non-TLP. TLP involves the teacher, students, curriculum, and teaching process. The forms of activities carried out include street vendors, career development, industry visits, and industrial internship. Actually these activities help BW/IW in terms

of products, human resources, technology and CSR.

Non-TLP is pursued through the production unit (PU), teaching factory, and TUK. Non-TLP activities are in the form of product production, training and certification. Production occurs both consumers BW/IW or the community agree to make finished goods, the manufacturing process outside of TLP involves teachers, students and industry. Vocational Education and Training students are able to add skills to competence. Student competence is recognized if it is allegedly passed a certain field through a certification test. The certification test is carried out by BNSP with higher education institutions / organizers.

## CONCLUSION

The cooperation between VHS and BW/IW is very important because as a benchmark for the success of student competencies, preparation for entering the workforce, increasing the potential of students in VHS. Vocational School as an institution that prepares manpower so that the graduates produced are in accordance with DUDI needs. There is a need for collaboration between schools and BW/IW to improve curriculum (synchronize needs). Thus, the partnership model between VHS and BW/IW to produce quality human resources produces three aspects: 1) the needs in BW/IW, 2) the ecosystem of the area

produced by BW/IW with VHS, and 3) the needs of the VHS learning process.

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