

Skill Mismatch and Industry Involvement in Improving the Job Readiness of Vocational School Graduates

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ABSTRACT

This research aims to measure the level of involvement of the industrial world in improving the Link and Match program of vocational high school with the industrial world promoted by the Indonesian government as a strategy to reduce the movement of vocational graduates. The variables of the research covered the communication made by the government in socializing the Link and Match program to the industrial world, the resources provided by the government, both in schools and in industry in supporting the Link and Match program, attitude towards Link and Match, the structure of the level of involvement DUDI in supporting of the Link and Match policy. The sample of the research was the industrial world that has become a partner of vocational high school both public and private in West Java - Indonesia as many as 157 companies. DUDI's partners usually cooperate in providing internships and recruiting vocational high school graduates in West Java. The results showed that the involvement of DUDI was influenced by the lack of communication, resources, attitude or disposition of DUDI towards policies and employees. The magnitude of the influence was 19.7% and the influence of DUDI attitude was 15.7%. In addition, the influence was 63.1%.

Keywords: Job Readiness, DUDI, Link and Match.

1. INTRODUCTION

The main mission of vocational high school (SMK) is to prepare students as prospective employments who have readiness to enter the world of work. However, not all vocational graduates are able to meet the demands of employment in accordance with their passion. It is caused there is a gap between the skills possessed by the graduates and the skills needed. In addition, there are many vocational graduates who do not yet fully have job readiness because there are still many graduates who are still unemployed.

Nowadays, the quality of vocational high school in Indonesia is questionable. The gap in the competence of vocational high school graduates with industrial needs is still considered high level. Such condition becomes vocational high school graduates as the biggest

contributor to open unemployment in Indonesia. According to data from the Central Statistics Agency (BPS), there were 11 percent of the 7 million unemployed throughout Indonesia that comes from vocational high school graduates. In beginning of 2017, the Open Unemployment Rate (TPT) of SMK was still at 9.2, However, number had increased to 11.41 percent in August 2017.

The condition is similar to the province of West Java - Indonesia. Open unemployment in West Java had reached 8.2 percent where most of the open unemployment came from vocational school graduates. The unemployment rate for undergraduates and diplomats in West Java was relatively lower, from 1.84 million unemployed people in 2017, 15 percent of them graduated from vocational or senior high school, followed by junior high school graduates, then

elementary school graduates, and finally undergraduates. The high unemployment rate can be explained from various aspects, including the existence of Mismatch between the supply of labor and the demand of the industrial world [1]. Education Mismatch occurs because of the heterogeneity of the ability of workers at the same educational qualification. There are some previous studies that attempted to examine the occurrence of Mismatches between the competencies mastered by graduates and industry such as [2 - 4] and other researchers took an approach from the field of education while most researchers such as [5 - 8] studied the roles of the company as the first formal experience for graduates.

The industrial world is one of the important elements in the world of employment. As the result, the industrial business world is one of the dominant absorbers of labor. Then, it is required to have an adjustment between the industrial business world and the world of education as a source of labor. One of the vocational education policies is Link and Match. The essence of the Link and Match concept is: 1) the existence of an attachment between the educational programs provided in schools with the needs of the wider community, and 2) the existence of compatibility or compatibility between educational programs and products in schools with the needs of the community [9].

The Link and Match program between the world of education and the world of industry has been launched since 1989, however, high unemployment rates, high unfilled job vacancies and low quality of workers are still problems experienced by Indonesia. It can be shown that the education Mismatch and the need for labor market skills are still high level, especially for workers who come from SMK graduates. Cooperation between various elements, such as academia, industry and government is certainly very important to study because the absorption of vocational graduates in the world of work will also increase if there is synergy between schools, industry, and government (triple helix). Therefore, this research aims to measure the level of involvement of the industrial world in improving the Link and Match program of SMK with the industrial world which is promoted by the Indonesian government as one of the strategies to reduce unemployment in SMK graduates.

2. METHODS

The object of the research as the independent variable in this study was the communication made by the government in disseminating the Link and Match program to the industrial world, the resources provided by the government in schools and in the industry in supporting the Link and Match program, the attitude of DUDI to the Link and Match policy and bureaucratic structure. Additionally, the object of research that became the dependent variable in this research was the

level of involvement of DUDI in supporting the Link and Match policy. The technique of data collection was carried out by distributing questionnaires to partner companies of vocational high school in West Java. The questionnaire was made in the form of closed questions to measure the variables of communication, resources, attitudes, bureaucracy and DUDI's involvement in supporting the success of the Link and Match policy for West Java vocational graduates.

3. RESULTS AND DISCUSSION

The whole of the data fit test of the method was carried out to evaluate in general the degree of fit or Goodness of Fit (GOF) between the data and the model. The results are presented in Table 1.

Table 1. Testing of research method

Measurement Goodness of Fit	Test Result	Cut Off Value	Description
Chi-Square (df=556)	2788,609	$\chi^2_{hit} < \chi^2_{tabel}$ (661,963)	Not Fit
P-value	0.0000	≥ 0.05	Not Fit
RMSEA	0.040	≤ 0.08	Fit
CFI	0.977	≥ 0.90	Fit
GFI	0.962	≥ 0.90	Fit
AGFI	0.945	≥ 0.90	Fit

Based on Table 1, the results of the Structural Equation model suitability test were obtained. The value of $df = 84$ with a Chi-Square value of $2788,609 > \chi^2_{tabel}$ which was $661,963$, and a P-value of $0.000 < 0.05$ indicating the model was not suitable. The RMSEA value of $0.040 (\leq 0.08)$ means that the model fits the data was suitable with. Furthermore, the CFI was fit with the index of 0.977 , and GFI of 0.962 and AGFI of 0.945 . Then, they have an index greater than the criterion, 0.90 . Then, it indicates that model was fit with the data. Although not all Goodness-of-Fit measures were in accordance with the recommendations and were greater than the cut-off value, it can still be concluded that the overall model is fit because according to Malhotra (2010:733), use at least 1 measure that is absolutely good (eg. : GFI, AGFI), 1 measure that is absolute bad (eg: Chi-Squares, RMSR, SRMR, RMSEA) and 1 measure that is comparative (eg: NFI, NNFI, CFI, TLI, RNI). It can be seen that the entire Goodness-of-Fit measure is greater than the cut-off value, so it can be concluded that the research model on the Structural Equation Model (SEM) is fit. Figure 1 shows the structural diagram model of this research.

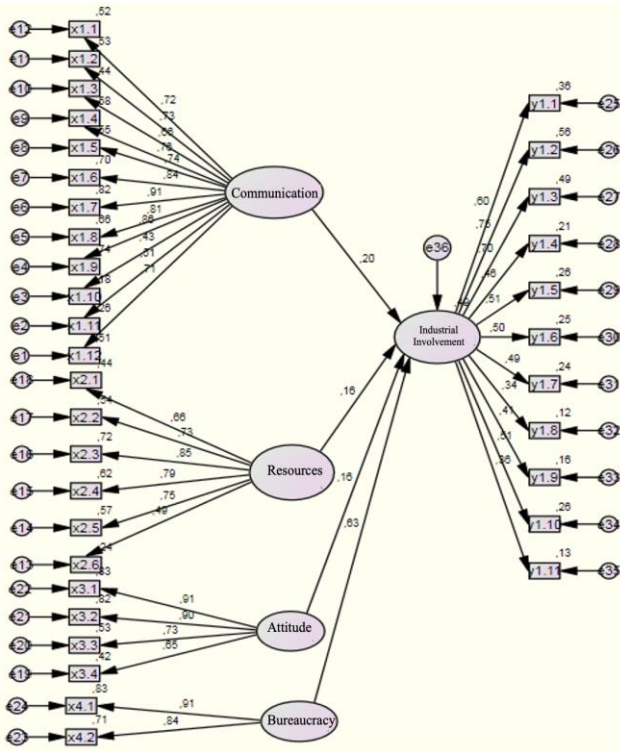


Figure 1 The model of structural diagram

Based on Figure 1, the estimation results of the structural model parameters are presented in Table 2.

Table 2 Summary of Structural Model Parameter Estimation

		Estimate		S.E.	C.R.	P
		RW	SRW			
Y	<--- X1	0.165	0.197	0.064	2.565	0.10
Y	<--- X2	0.193	0.164	0.095	2.035	0.042
Y	<--- X3	0.138	0.157	0.067	2.045	0.041
y	<--- X4	0,386	0.631	0.066	5.813	***

Hypothesis 1: The effect of communication on DUDI's involvement in the Link and Match program

The findings of the study indicated that the level of involvement of DUDI was positively influenced by the level of communication carried out by both the government and vocational schools in West Java. It can be rated from the path coefficient value (SRW) > 0. The magnitude of the influence of communication on DUDI involvement was 0.197 or (0.197x100%) = 19.7% the high and low variations that occurred in DUDI involvement can be explained by communication. The remaining 80.3% was the influence of other variables that are not explained in the model.

Communication is certainly needed in all aspects of human life, including in establishing good relationships with institutions/companies. Vocational high school and DU/DI are two components that are mutually benefit (mutualism) and need each other. If only one component is active, it will not produce the maximum impact.

Mutually, good communication skills from vocational high Schools will have an impact on increasing good relations with DU/DI as those who receive messages. This kind of communicative interaction will benefit the relationship between SMK and DU/DI [10].

Hypothesis 2: The influence of resources on DuDi's involvement in the Link and Match program

The research findings showed that the level of involvement of DUDI was positively influenced by the level of resources both by the government, vocational high school in West Java and DUDI itself. It can be shown from the path coefficient value (SRW) > 0. The magnitude of the influence of resources on DUDI involvement was 0.164 or (0.164x100%) = 16.4%, the high and low variations that occurred in DUDI involvement can be explained by resources. The remaining 83.6% was the influence of other variables that are not explained in the model.

Reference [11] states that in the implementation of human resource development it is required to consider various factors, both from within the organization itself and from outside the organization concerned (internal and external) for it is required to have quality resources both from the school (internal) as well as from the DUDI and the government (external). The resources in question include supporting facilities provided by the government or schools, the competence of teachers to teach in order to produce graduates who have the required competencies, the number of human resources from both schools and the government as well as the commitment of the government, schools and DUDI to implement the Link and Match program.

Hypothesis 3: The effect of attitude/disposition on DuDi's involvement in the Link and Match program

The research findings showed that the level of involvement of DUDI was positively influenced by the level of attitude/disposition of DUDI towards the policy. It can be seen from the path coefficient value (SRW) > 0. The magnitude of the effect of DUDI's attitude on DUDI involvement was 0.157 or (0.157x100%) = 15.7% the high or low variation that occurred in DUDI involvement can be explained by attitude/disposition. The remaining 84.3% was the influence of other variables that were not explained in the model.

The DUDI's concern and support for the Link and Match program policy is one of the success factors of the program itself. Reference [12] state that an effective internship is an internship that is carried out if it meets the needs of schools and the needs of the industry. For that we need cooperation and synchronization in terms of academic and material in its implementation.

Hypothesis 4: The influence of bureaucracy on DuDi's involvement in the Link and Match program

The research findings showed that the level of involvement of DUDI is positively influenced by the level of bureaucracy. It can be known from the path coefficient value (SRW) > 0. The magnitude of the influence of the bureaucracy on the involvement of DUDI was 0.631 or $(0.631 \times 100\%) = 63.1\%$ the high and low variations that occurred in the involvement of DUDI can be explained by the bureaucracy. The remaining 36.9 is the influence of other variables that were not explained in the model.

The success of the Link and Match program requires good coordination from the government to related stakeholders. The obligation of the stakeholders is to regulate the education system in accordance with the needs of the industry and the needs of the community in order to reduce the unemployment rate of graduates of vocational education that has been described previously [13]. Meanwhile, DUDI is expected to be able to meet the needs of the community, so that competent vocational education is related to the industrial world that requires reliable human resources to meet the needs of people's lives. On the other hand, the government must seriously maintain a climate of linkage and the mechanism for implementing vocational knowledge in the world of work so that it is hoped that the Link and Match program will run well and be able to bring benefits to all parties [14].

4. CONCLUSIONS

The gap in the competence of Vocational High School (SMK) graduates with industrial needs is still considered high. Therefore, such the condition places vocational or senior high school graduates as the biggest contributor to open unemployment in Indonesia. The industrial world is one of the important elements in the world of employment. The Link and Match program between the world of education and the world of industry has been launched since 1989, however, high unemployment rates, high unfilled job vacancies and low quality of workers are still problems experienced by Indonesia.

To support the success of the Link and Match program, the involvement of DUDI is required. The results showed that the involvement of DUDI was positively influenced by the level of communication, resources, attitudes or dispositions towards policies and bureaucratic structures from the government, schools and DUDI itself. Therefore, seriousness from all related parties is needed, considering that the Link and Match program can provide great benefits in the long term.

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