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## **RESEARCH REPORT**

# **INDUSTRIAL-EDUCATIONAL COOPERATION AND KEY INSTITUTIONAL FACTORS FOR VOCATIONAL EDUCATION AND TRAINING IN INDONESIA AND CHINA**

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## ABSTRACT

This study aims to determine: (1) form and pattern of cooperation between industries and educational institutions in the implementation of TVET, (2) HR requirements from industry which influence industry involvement in TVET, (3) improvement of pedagogic competence of trainer in TVET programs (4) appropriate curriculum design that can produce qualified and skilled graduates, (5) economic and institutional elements which are crucial to the successful implementation of PPP in VET.

This study used mix methods which are survey method with a qualitative approach conducted by YSU's team, and mainly literature review and expert interview conducted by CDIBB's team. In YSU's team, the population is from parties involved and interested in the implementation of vocational education and training program in heavy equipment field in Indonesia. The sample of the research consisted of three parties, namely: vocational high school, heavy equipment distributor's company or mining company, and the university as a producer for vocational teachers. Meanwhile, the population in CDIBB's team is based on the information obtained from literature review, relevant practitioners in the field of VET in government, and interview with vocational schools and companies.

The study results showed that industrial-educational cooperation on TVET program in Indonesian context can be described as follows: (1) The pattern of relationships are: (a) fully collaborate and (full partnership) and (b) partial partnership (2) Graduates competences of vocational education and training program in the field of heavy equipment according to the needs of the industry are: (a) Knowing and understanding how to use tools and equipment, master the concept of electricity, the power train and hydraulic system, the basic maintenance and troubleshooting (b) be able to apply the knowledge to repair and maintenance, and (c) able to work independently with periodic monitoring. (3) Development of curriculum can be conducted on five stages, those are: (a) current conditions analysis, (b) development phase #1-extended intersection of competences, (c) development phase #2-a novel curriculum of university, (d) curriculum implementation on learning process, and (e) evaluation. (4) To facilitate firms' involvement in VET in the Chinese context, or generally speaking the Public Private Partnership in VET, the following institutional factors can be useful: imperfect labor market institutions which constrain the labor mobility and guarantee the benefits of the involved enterprises, standardization and certification of VET program as well as interest representation mechanism.

**Keywords:** cooperation programs, graduates competences, heavy equipment, curriculum development, firm involvement, imperfect labor market, VET standard, transaction cost