

Determining the Role of Indonesian Education for Preparing Human Resources

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DOI: 10.9734/bpi/rdass/v4/6222F

ABSTRACT

The maritime sector encompasses a wide range of areas, including the manufacturing sector, which supports the acquisition, building, and maintenance of ships and their components, the maritime defence industry, the marine management industry, and much more. In the realm of vocational education and at the tertiary level, educational institutions, beginning at the secondary school level, play a critical role. Graduates of these educational institutions are competitive and may be found in a variety of professions in the industrial world. There needs a breakthrough from the government so that the absorbed workforce does not lose their jobs by taking steps to improve labour competency and productivity through standardization and harmonization competency certification through cross-sectoral cooperation and the private sector, strengthening coordination between stakeholders, namely the government, business, workers, and regional governments.

Keywords: Maritime defence industry; human resources; engineering and technology; shipbuilding design process.

1. INTRODUCTION

This paper was made to find out the benchmark of educational institutions in preparing human resources in the maritime industry and the ability of the world of education in upgrading human resources. The skilled industrial human resources who are competent and ready to work with the provision of vocational education in nine Vocational Schools based on specialization and competence are created. Besides that, the competent and ready-to-work middle-level industry human resources are created by conducting increasement of technical efficiency through renewal/revitalization of industrial machinery, improvement and renewal of workforce skills, economic optimization economic of scope through fostering industrial clusters, and increasing mastery of technology through gradual revitalization of quality infrastructure (measurement, standardization, testing, and quality), increasing the capacity of engineering and technology services, and increasing mastery and implementing new product development (new product development) by the domestic industry [1]. Progoulaki and Theotokas [2] seek to elevate the value of human resources in shipping and to underline the potentials that human resource management and cultural diversity management have as a shipping company's core competency. In a triangulated theoretical framework, the combination of resource-based view, human resource management, and cultural diversity management leads to a framework of choices which include strategies for the management of maritime human resources' cultural diversity.

The maritime industry does not only cover shipbuilding but also covers the shipping sector, fisheries is a capital-intensive industry where industries are built with large capital and are supported not only by

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high technology but also human resources that have competence. In industries, in the field of shipbuilding, involve many industrial sectors that can absorb a lot of human resources, including the iron plate manufacturing industry, pipes, pumps, machinery systems and electricity, all of which are interrelated with the shipbuilding design process [3]. The maritime industry uses computers and cyber-dependent technologies for navigation, communications, ship systems monitoring and control, cargo transfers, access control, passenger and cargo screening, fire detection, financial and other business transactions, and other purposes. Attacks on these systems can result in such consequences as groundings, collisions, cargo loss, environmental pollution, disruption of trade, and human injuries and fatalities [4,5]. Therefore, it takes a lot of competent human resources to run the ship design industry. In order to meet competent human resource needs. The role of educational institutions starting from the secondary school level is particularly important in the field of vocational education and at the tertiary level. Graduates of these educational institutions are able to be competitive and can be scattered in the industrial world according to their fields.

2. METHODOLOGY OF RESEARCH

Methodology in this paper was the descriptive methods from literature study and gained data from the government institution from the BPS (Central Statistical Agency) and Bappenas [6,7]. In an effort to improve quality and increase labour competitiveness, the Government is targeting a reduction in the Open Unemployment Rate (OUR) to reach 4.00-5.00 percent in 2019, as well as the creation of employment opportunities of 10.00 million over 5 years, the policy direction for increasing labour competitiveness is through the development of partnership programs between the government and the business world. The development of this partnership is in order to strengthen the relevance of competency-based training programs so that graduates have expertise that is in accordance with industry needs. In addition, this program, in the first year, focused on strengthening competency-based education and training institutions through standardization of training facilities and infrastructure. OUR is an indicator that can be used to measure the level of supply of labour that is not used or not absorbed by the labour market. OUR in August 2017 was 5.50 percent, down to 5.34 percent in August 2018.

3. RESULTS AND DISCUSSION

According to data from the Central Statistics Agency (Biro Pusat Statistik), the number of unemployed people in Indonesia as of August 2018, reached 7 million people [3]. This figure is equivalent to 5.34 percent of the total workforce in Indonesia which was recorded at 131.01 million people. Thus, there are 124.01 million people working compared to other education levels, unemployment from Sekolah Menengah Kejuruan (Vocational High School) in August 2018 was recorded at 11.24 percent. This figure increased from data is compiled by BPS in February 2018, which amounted to 8.92 percent. Nevertheless, there was a slight decline from 11.41 percent. Furthermore, unemployment is experienced by high school graduates (SMA), with a percentage of 7.95 percent. There is a supply of labour that is not absorbed, especially at the level of vocational and high school education. Meanwhile, according to BPS, those who were educated below vocational and high school were more willing to accept any job. The analysis can be seen from the number of unemployed elementary school graduates which is only 2.43 percent, while for unemployed junior high school graduates there is 4.8 percent. While at the college level, the unemployment rate is increased from the previous year from 5.18 percent to 5.89 percent years on years, while the open unemployment rate at other education levels is declined.

Viewed from the area of residence, OUR in urban areas is higher than in rural areas. In August 2018, OUR in urban areas was 6.45 percent, while OUR in rural areas was only 4.04 percent. Compared to a year ago, OUR in urban areas is decreased by 0.34 percentage points, while rural OUR increased by 0.03 percentage points. Viewed based on employment trends during August 2017 – August 2018, business sectors experienced an increase in the percentage of the population who worked mainly in providing Accommodation and Drinking Food (0.47 percentage points), Processing Industry (0.21 percentage points), and Transportation (0.17 percentage points). While employment experienced a decline mainly in Agriculture (0.89 percentage points), Other Services (0.11 percentage points), and Education Services (0.05 percentage points) [8].

From the above case, it is clear that human resources have not been absorbed in the maritime industry. In fact, in the past four years with the sea highway program, Joko Widodo government has built approximately 100 units of ships from various types through the Ministry of Transportation. And it has not had a positive impact on the absorption of competent human resources. It is expected that with the sea toll program that has built approximately 100 units of ships from various types, it can absorb workers especially in the area that is not in accordance with the reality in the field. In East Java itself, the largest shipyard handles sea toll projects in building ships experienced a trend of an open unemployment rate which increased by 0.14 percent in the period February-August 2018. Whereas previously in August 2017, the unemployment rate in East Java was 4, 00 percent had decreased in February 2018 by 0.15 percent to 3.85 percent. There is a big problem in responding to this problem that needs to be resolved by the government in reducing the number of unemployed people in Indonesia, so that human resources can be absorbed in the industrial world, especially the maritime industry. Other non-formal needs to also conduct curriculum development to adjust market needs.

4. CONCLUSION

The government's efforts to achieve OUR reduction targets, the creation of consistent new jobs of 2 million per year, and increasing competitiveness in general, need harder efforts. Sea toll projects through the construction of ships of various types have not been able to answer the problem of labour absorption in the maritime field. There needs a breakthrough from the government so that the absorbed workforce does not lose their jobs by taking steps to improve labour competency and productivity through standardization and harmonization competency certification through cross-sectoral cooperation and the private sector, strengthening coordination between stakeholders, namely the government, business, workers, and regional governments.

Building a Training Development Fund scheme and its institutions, as a breakthrough (business not as usual) is necessary to be able to immediately expand access to training and apprenticeships such as providing training and capital development for graduates of vocational and tertiary secondary schools to open home workshops (valve repair services, propeller companies, etc.) because the potential of ship repair services is more promising than for building new units.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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This chapter is an extended version of the article published by the same author(s) in the following journal. IOP Conf. Series: Journal of Physics: Conf. Series, 1469 (012130): 2020.