

The Dilemma of Development Based on Manufacturing, Labor Supply, and Unemployment in the Context of Regional Competitiveness

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Abstract. The economic development in West Java relies on the performance of the manufacturing industry. Unfortunately, this condition is not supported by the expected labor supply so the unemployment rate increases. It has implications for improving the number of poor people. This situation is increasingly a dilemma because it becomes an inhibiting factor for West Java Province's competitiveness. This study aims to find quality and appropriate policy solutions to reduce economic development problems in West Java. This study uses mixed methods based on a regional competitiveness index survey (secondary research). The results showed that a mismatch between the demand for labor and the supply pattern, so that the manufacturing industry could not fully absorb the resulting labor force. Furthermore, it impacts the unemployment rate, which has increased significantly in West Java Province.

Keywords: Regional Development; Manufacturing Industry; Labor; Unemployment; Regional Competitiveness

1 Introduction

West Java as a province with the largest population in Indonesia. The Central Bureau of Statistics (BPS) stated that the total population of West Java in 2019 reached 49,316,712 people or the equivalent of 18.40 percent of Indonesia's population with a sex ratio of 102.50. Therefore, the West Java Government implemented an industrial sector-development policy which is expected to be able to absorb a large number of workers. In addition, the industrial sector is able to provide a significant contribution to the West Java PRDR. The processing industry is the largest contributor to the economy based on the Gross Regional Domestic Product, business field of 41.60 percent (2019).

To increase industrial growth, the West Java Provincial Government has set various policies to provide convenience and certainty for investors in helping. This is to increase investment in West Java, both for foreign investment (PMA) and domestic investment (PMDN). During the 2015-2018 period, the increase in the number of projects reached 6.81 percent or 2,536 foreign investment and domestic investment projects with an increase in investment value of 33.97 percent or as much as 41.284 Trillion Rupiah.[1]

However, in 2019 industrial growth in West Java Province in 2019 decreased by 4.04 percent. This is due to high economic costs which in turn result in low product competitiveness in the global market. The high economic costs, among others, are due to the fact that the majority of production raw materials must be imported, high logistics costs due to the infrastructure supporting industrial estates that are not yet integrated and inadequate availability of competent and certified industrial sector human resources. The Central Bureau of Statistics released data on Working Population by Main Employment and Education in 2019 in West Java, which was dominated by workers with junior high school education and below, amounting to 64.6 percent or as many as 11,233,796 people. Meanwhile, only 30 percent of the workforce has a high school education and 5.43 percent has a Diploma I / II / III / Academy / University education.

Other issues that must also receive attention from the government are structural changes in the Indonesian economy and investment trends. Since 2017, foreign investment in the service sector has turned into a sector with the largest investment realization replacing the manufacturing sector. If this continues, the demand for labor in the service and trade sectors which includes marketers and salespeople will increase. On the other hand, so far Vocational School graduates are prepared to work in production or become operators. This of course will take into account the supply and demand side of labor. In addition, the trend of the industrial revolution 4.0 which is characterized by the era of automation and the era of robotics also has the potential to be a threat to Vocational School graduates. Research from global consulting firm McKinsey & Company shows that the impact of industry 4.0 will eliminate several jobs and create new jobs where several activities and types of work can be automated or replaced by robots in the industrial era 4.0.[2]

Based on the 2010-2035 Indonesian Population Projections (BAPPENAS, BPS & UNFPA. 2013) it is estimated that in the period 2025-2030, West Java Province will experience a window of opportunity with a demographic bonus, a condition in which the number of people in productive age (15-64 years) will be greater than the population of non-productive age (0-14 years and 65+) in other words, the dependency ratio will be small. This figure will be a burden for the government if the education level of the productive age population is low so that it will not be absorbed by the industry. As a result, the Open Unemployment Rate will increase.

Improving the quality of the workforce through improving the quality of Vocational School graduates is one of the concerns of the Central Government as outlined in Presidential Instruction No.9 of 2016 [4] concerning the Revitalization of Vocational Schools in the context of Improving the Quality and Competitiveness of Indonesian Human Resources. This is because the competitiveness of Indonesian Vocational School students is still considered low. Based on data from the Central Bureau of Statistics, the Open Unemployment Rate rate for August 2019 is based on education level, namely Elementary School graduates are the lowest, while the Open Unemployment Rate for Vocational Schools is the highest. August 2019 reached 2.41%. In the same period, the Open Unemployment Rate for Vocational School graduates was at 10.42%.

To accelerate the improvement of the quality of Vocational School graduates, this policy is not only aimed at the Minister of Education and Culture, but also addressed to the Minister of Research, Technology and Higher Education, Minister of Industry, Minister of Manpower, Minister of Transportation, Minister of Marine Affairs and Fisheries, Minister of Owned Enterprises State, Minister of Energy and Mineral Resources, Minister of Health, Minister of Finance, Head of National Professional Certification Agency, and Governor. Especially for Governors, the President instructed to implement: a) Provide facilities for the community to

get quality Vocational School education services and in accordance with the potential of their respective regions; b) Providing adequate and quality educators, educational staff, facilities and infrastructure for Vocational Schools; and d) Developing Leading Vocational Schools. Furthermore, how the West Java Provincial Government poured out the presidential instruction in the Regional Policy of West Java Province, especially in supporting the availability of quality and competitive workforce needed by the manufacturing industry in West Java. This article will review the Manufacturing Industry Development Policy in West Java and the problem of the supply of quality and competitive workers.

2 Methods

This article is structured through a qualitative approach. Qualitative research methods are research methods developed based on the results of research in the field. The results obtained in this qualitative research method will be in the form of documents. The type of data used is secondary data obtained from official government documents.

3 Results And Discussion

3.1 Regional Development Policy and Leading Industrial Sector in West Java

Regional development in West Java Province has an important role in regional development, especially in areas with abundant resources and are vulnerable to changes on a global scale, such as rapid technological advances in relatively developed areas resulting in underdeveloped areas, which have limited resources. and accessibility. For this reason, regional development planning in West Java Province is global in nature by taking into account the inter-regional and inter-sectoral linkages with various impacts that will arise to develop the entire sector as a single unit in the framework of equitable development. Regional development aims for the prosperity of the region by optimally empowering all existing potentials by striving for harmony and balance between regional development so that it can provide the greatest benefit to the entire community. In the context of regional development planning, based on the characteristics, conditions, and potentials that exist in each regency / city in West Java, it has determined six (6) Development Areas as a strategy to realize harmony and balance between regional development. The six Development Areas consist of the Bodebekpunjur Development Area, the Purwasuka Development Area, the Ciayumajakuning Development Area, the East Priangan-Pangandaran Development Area, the Sukabumi Development Area and its surroundings, and the KK Cekungan Bandung Development Area.

The industrial sector is one of the sectors that has an important role for the economy of West Java Province because it has a very large capital capitalization value, the ability to absorb labor, and the ability to create added value. The manufacturing industry is one of the leading sectors in West Java Province. The development of the manufacturing industry will be developed in the Bodebekpunjur Development Area and in the Purwasuka Development Area:

The Bodebekpunjur Development Area is an area covering Bogor Regency, Bogor City, Bekasi Regency, Bekasi City, Depok City, Cianjur Regency (Puncak). Bogor City, Depok City and Bekasi City, are directed as leading cities, bordering the national capital which is part of the development of the Jabodetabekpunjur National Strategic Area to encourage the

development of the National Activity Center for the Jabodetabek urban area, to become a node for urban services and services, as well as to develop the trade, services sector. and labor-intensive industries. Bogor Regency and Bekasi Regency, are directed to become a buffer zone in the National Activity Center system for the Jabodetabek urban area, as well as to develop an environmentally friendly and efficient use of groundwater industrial sector, not resulting in land conversion in (Sustainable Food Agriculture Areas), as well as metal mineral mining activities and non-metals to support development in Bodebekpunjur. Furthermore, in the National Territorial Policy it is explained that the development of universities that have vocational study programs is carried out in universities that support the industrial sector including the manufacturing industry. Meanwhile, the development of Vocational Schools in the Java-Bali region totals 1,713 Vocational Schools that support the agribusiness and agrotechnology sectors, maritime affairs, tourism, arts and creative industries, technology and engineering, and energy and mining.

The Purwasuka Development Area, which includes Purwakarta Regency, Subang Regency and Karawang Regency, which is directed at developing non-polluting and non-extractive manufacturing industries. In the National Territorial Policy, it is explained that the development of universities that have vocational study programs is carried out in universities that support the industrial sector including the manufacturing industry. Meanwhile, the development of Vocational Schools in the Java-Bali region totals 1,713 Vocational Schools that support the agribusiness and agrotechnology sectors, maritime affairs, tourism, arts and creative industries, technology and engineering, and energy and mining.[1]

The government policy to develop industry 4.0 has an impact on revitalizing the manufacturing industry and accelerating the implementation of Fourth Industrial Revolution. The Making Indonesia 4.0 initiative provides great potential to multiply workforce productivity, so as to increase global competitiveness and increase the share of the global export market. Higher exports will open up more job opportunities, so that domestic consumption will be stronger and Indonesia can become one of the top 10 world economies. This opportunity will be captured by the REBANA Golden Triangle Region (Cirebon-Subang-Majalengka) so that the area will become the new engine of economic growth in West Java. The development of the REBANA Golden Triangle Area (Cirebon-Subang-Majalengka) is also planned to overcome the problem of high industrial density in Bekasi and Karawang districts. Based on the Economic Census in West Java Province in 2016, there were 2,952 Large Medium Enterprises in Karawang Regency, 5,198 Large Medium Enterprises in Bekasi Regency, and 9,437 Large Medium Enterprises in Bekasi City. The environmental carrying capacity for the Bodebekkarpur area is indicated to have exceeded the threshold, so that with the REBANA Golden Triangle Area (Cirebon-Subang-Majalengka) the density in Bodebekkarpur can be reduced because the direction of investment and industrial development is distributed to the east of West Java. [1]

In addition, there is a comparative advantage in terms of labor wages, namely lower wages compared to other industrial areas in West Java. In 2020, the average Regency Minimum Wage in West Java will reach IDR 2,963,497.40. Meanwhile, Regency Minimum Wage in Indramayu reached IDR 2,297,931.11; Majalengka Regency Rp1,944,166.36; Cirebon Regency Rp2,196,416.09; Sumedang Regency Rp3,139,275.37; and Subang District Rp. 2,965,468.00.[1] The following are the dynamics of the manufacturing industry's growth, namely Gross Regional Domestic Product in West Java:

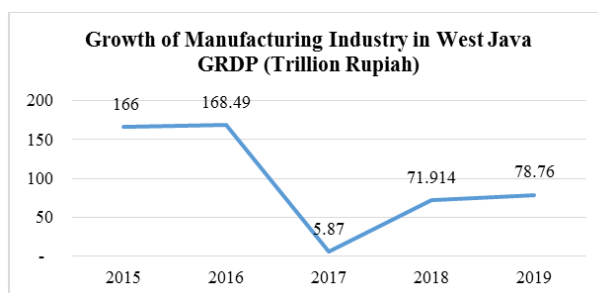


Fig. 1. Growth of Manufacturing Industry in West Java GRDP [1]

3.2 Labor Conditions in West Java

Labor is an important factor of production. Without labor, the factors of production cannot be used and utilized optimally. Indicators that can describe labor conditions include the Labor Force Participation Rate. During the 2015-2019 period, the West Java Province Labor Force Participation Rate increased by 4.73 percent. Meanwhile, the percentage of job seekers placed in 2019 reached 35.57 percent (see in table 1).

Table 1. Labor Conditions in West Java

INDICATOR	UNIT	2015	2016	2017	2018	2019
Total Labor Force	People	20.586.356	21.075.899	22.391.003	22.628.122	23.804.456
The ratio of the employed population	Percent	91,1	91,28	91,78	91,83	92,02
Job Opportunity Rate	Percent	91,28	91,11	91,78	91,83	92,02
Labor Force Participation Rate	Percent	60,34	60,65	63,34	62,92	65,07
Open Unemployment Rate	Percent	8,72	8,89	8,22	8,17	7,99
Jobseekers are Already Placed	Percent	40,24	47,57	n/a	n/a	35,57
Percentage of registered job seekers with training certificates	Percent	2,78	2,29	1,57	1,00	0,25
Percentage of registered job seekers with competency certificates	Percent	0,38	0,34	0,34	0,38	0,25
Labor Absorption Percentage	Percent	75,79	72,16	87,67	54,24	35,57
Number of new entrepreneurs	People	3.380	640	280	620	-
Percentage of industrial relations cases resolved	Percent	94,00	90,70	87,52	85,93/86,97	57,63
Percentage of facilitating the settlement of cases of Prospective Migrant Workers and Migrant Workers	Percent	72,99	63,64	55,55	66,11	-
Percentage of Employment Social Security participation	Persen	14,79	14,59	12,63	11,08	13,46

Several things that have been identified as contributing to key labor issues include:

- a. Limited job opportunities;
- b. Workforce competence does not match work needs;
- c. Decrease in the percentage of registered job seekers with training certificates to only 1 percent in 2019;
- d. Many layoffs (PHK);

The impact of the COVID-19 pandemic on the industrial sector affects employment (workers / laborers). Based on data as of October 20, 2020 from the West Java Provincial Manpower Office, it is known that 1,983 companies were affected by COVID-19, with a total of 111,985 workers / laborers affected. The percentage of workers / laborers who were laid off in the manufacturing industry sector was 16.20 percent and the percentage of workers / laborers who were laid off was 23.8 percent.

- e. The proportion of the working population classified as "vulnerable employment" is quite high, more than 50 percent;
- f. Lack of interest in job seekers for independent businesses;
- g. The high number of people working in the informal sector;
- h. The Open Unemployment Rate (TPT) is dominated by Vocational School graduates due to a mismatch (not in accordance) with the needs of the industry or company;
- i. Not optimal absorption of local labor in companies / activities of foreign investment / domestic investment

The number of unemployed people in West Java Province in August 2020 was 2.15 million people. Compared to the conditions in August 2019, unemployment increased by 25 thousand people, from 1.90 million to 2.15 million people. The Open Unemployment Rate in August 2020 was 10.46 percent, which means an increase compared to last year in the same period, namely 7.99 percent. Compared to the national Open Unemployment Rate of 7.07 percent, the West Java Open Unemployment Rate is still higher. This is due to the COVID 19 pandemic as well as the limited new job opportunities and the absence of a link and match between the competencies of the workforce and the job market. Limited availability of job opportunities, many layoffs, lack of interest in job seekers for independent businesses are factors that trigger high unemployment rates in West Java

During the 2015-2019 period, the realization of foreign investment and domestic investment in West Java Province increased by 13.15 percent from Rp121.5 trillion in 2015 to 137.5 trillion in 2019, see table 2. Whereas seen from the number of projects and absorption the workforce has decreased from 37,213 projects and 349,377 workers in 2015 to 15,370 projects and 130,704 workers in 2019.

Table 2. Foreign Investment and Domestic Investment in West Java Province [1]

INDICATOR	UNIT	2015	2016	2017	2018	2019
Total Number of Projects	Project	37.213	38.057	36.791	39.749	15.370
a. Domestic Investment	Project	5.108	5.923	7.151	7.893	10.455
b. Foreign Investment	Project	32.105	32.134	29.640	31.865	4.915
Total Investment Amount	Trillion Rp	121,516	143,04	162,72	162,8	137,5
a. Domestic Investment	Trillion Rp	71,73	74,99	68,66	74,69	88,21
b. Foreign Investment	Trillion Rp	49,78	68,05	94,05	88,19	49,28
Labor Absorption	People	349.377	479.751	297.786	242.151	130.704
a. Domestic Investment	People	240.048	295.039	138.921	70.709	94.644
b. Foreign Investment	People	109.329	184.712	158.865	171.442	36.06

There has been a decline in the realization of foreign investment due to the uneven realization of investment in districts / cities, uneven availability and quality of investment supporting infrastructure, social dynamics affecting business certainty and security, not optimal absorption of local labor in foreign investment / domestic investment companies / activities.

3.3 Manpower Competency Improvement Strategy

Cretsingher, [3] states that competitiveness in the field of education includes real competition, perceived competition, and self competition. Real competition is seen in the search for the world of work. Munadi et al. [3] explains that to build competitiveness, prospective workers must have at least employability skills, namely the basic skills that every worker must have to adapt to the world of work. Furthermore, Sermsuk et al., [3] employability skills consisting of fundamental skills, personal management skills, and teamwork skills. Fundamental skills contain the ability to communicate, organize and manage information, operate numbers, and think to solve problems (problem solving). Management skills consist of positive behavior, responsibility, adaptability, learning skills, and prioritizing safety work. Meanwhile, teamwork skills consist of the ability to work together and the ability to participate in a task or project. Furthermore, Rowe & Zegwaard [3] argue that employability skills can be built with work integrated learning or a strategy of integrating theory with practice in learning. The success of the Industrial Work Practice (Prakerin) program will increase the employability of students' skills [3]. Providing work experience to students is an important factor for growing employability skills. These experiences will have a positive effect on employability skills, which are conditions for knowledge maturity, maturity in accepting opportunities, being responsible, and having the readiness to enter the world of work or face the challenges of job competition (Slameto, 2010, in Judges 2020)

Therefore, efforts to increase labor competency are not solely the full responsibility of the government, but must involve other parties such as the private sector and individuals themselves who must participate in finding efforts that can be made to overcome labor problems.

3.4 Efforts That Must Be Made by The Government

3.4.1 Formal education

The development of vocational secondary education can be pursued through the development of national and international service industry-based vocational schools, which have a comparative advantage in the era of global competition. These efforts can be supported through the development of a competency-based curriculum that is integrated with international curriculum contents.

The policy to develop the REBANA Golden Triangle Area (Cirebon-Subang-Majalengka) is expected to improve the socio-economic conditions in Subang Regency, Indramayu Regency, Majalengka Regency, Sumedang Regency, and Cirebon Regency, which currently have some indicators of the welfare of the people still below average. West Java. One of them is through collaboration with industry which will later do business in the REBANA Golden Triangle Area (Cirebon-Subang-Majalengka) to increase the Regional Human Development Index through Champion Vocational Schools. Champion Vocational School is an innovation in secondary education services in West Java that provides the widest possible opportunity for

all people in West Java to access educational services. Some of the strategies for this program are strengthening school partnerships (vocational schools) with industry and developing competencies that are relevant to the needs of the world of work and industry (Vocational school curriculum development). Another strategic activity is to maximize the role of the Job Training Center as a training center for local communities in the Golden Triangle Area of REBANA (Cirebon-Subang-Majalengka) so that they can be absorbed by the industry or become entrepreneurs who are able to take advantage of opportunities..

In addition, through the West Java Champion School Program (Sajajar), the West Java Provincial Government is expanding the main school to strengthen open schools, strengthening vocational school partnerships with industry, developing competencies that are relevant to the needs of the world of work and industry, utilizing technology that supports an active learning system. and efficiency (including for distance learning) and finally the development of an assessment system that allows recognition of different learning experiences in learners. Implementation of Champion (Parallel) Jabar Schools, including: Open High Schools, Distance Education Vocational Schools, Smart Schools, Digital Learning, Scholarships for poor students, Strengthening of High School Laboratories, Vocational School Workshops, Thematic Vocational School Development. In addition, it also focuses on strengthening Vocational School cooperation with industry, strengthening the competence of teachers, school principals, supervisors, and other education personnel.

Champion Vocational Schools are implemented through the revitalization of Vocational Schools as an effort to improve the quality of Vocational School education in accordance with regional needs and potential as well as link and match with industry. This program aims to improve the competency of the output of Vocational Schools as an effort to reduce the Open Unemployment Rate in West Java

Free school for underprivileged residents. The Golekmah Free Subsidy is aimed at addressing issues of poverty, unemployment and social problems. The subsidy is in the form of providing social protection assistance for the poor to reduce the burden of spending. This priority is carried out to support the achievement of the targets and target indicators of Missions 2, 3, and 4 development in West Java. Some of the supporting programs are free tuition fees given to high school students / vocational schools / public schools, educational development contributions for economically disadvantaged students who are given to poor students in private vocational schools / high schools that are not accepted in school government, the Universal Secondary Education Assistance (BPMU) grant is an educational assistance provided to Vocational Schools / Senior High Schools / Private Special Schools and Madrasah Aliyah for school operational costs.

3.4.2 Non-formal education

The government needs to develop a training and mentoring program in the framework of upskilling and reskilling that can be accessed by SMK graduates. In addition, the government also needs to encourage professional and expertise certification programs for Vocational School graduates. The West Java Provincial Government plans to establish a Skill Development Center (Educational Function) in Bekasi City, Bandung Regency and West Bandung Regency as an effort to increase workforce competence and increase productivity;

3.4.3 Incentive Administration

The government needs to encourage cooperation between schools and companies so that Vocational School graduates can work immediately after graduating. This step can be taken by the government by providing tax incentives to business actors to encourage them to create apprenticeship and training programs for Human Resources, especially Vocational School graduates.

3.5 Efforts that can be made by private / business parties

1. Collaborating with schools and providing internship opportunities to students.
2. Providing opportunities for workers to develop themselves as an effort to improve the quality of the workforce.
3. Efforts that must be made by Job Seekers

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