



Post Covid-19 Employment Analysis in Bengkulu Province

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ABSTRACT

Covid-19 has caused a major shock to economic conditions, including employment. This study aims to analyze the employment conditions of Bengkulu Province, especially the inequality of labor productivity during the post-COVID-19 economic recovery period. The study used data from the Central Statistics Agency related to employment data of 10 districts/cities and Bengkulu Province, with descriptive analysis methods and the Williamson Index. The results showed a decrease in the percentage of informal labor dominated by a decrease in labor in the Agriculture, Forestry, and Fisheries Business Fields. In addition, labor productivity inequality in 2021 has improved, as indicated by a decrease in the IW rate from 0.47 to 0.44. The economic recovery process marked by an increase in formal sector workers has an impact on reducing labor productivity inequality between districts/cities³ in Bengkulu Province.

Keywords: Employment, inequality in labor productivity, Post Covid-19

1. INTRODUCTION

Many regional economies experienced shocks due to the COVID-19 pandemic in 2020 ((1); (2); (3); (4); (5); (6); (7); (8); (9)). The most obvious impact is the contraction of economic growth. However, in addition to these indicators, the impact of the pandemic also affects macroeconomic indicators and public welfare.

Bengkulu Province is no exception to experiencing economic slowdown conditions in 2020. BPS Data from Bengkulu Province (10) shows that during 2019, Bengkulu Province experienced a continued slowdown in economic growth. In the first quarter, economic growth reached 5.04%, while in the fourth quarter it was 4.73%. In 2020, the contraction continued, where economic growth was at 3.65% in the first quarter and became -2.39% in the fourth quarter.

From the condition of districts/cities in Bengkulu Province, all regions experienced a slowdown in economic growth in 2020 due to the COVID-19 pandemic. The slowdown in economic growth was from the lowest -4.69% to the highest -5.66% compared to economic growth in 2019. Table 1 presents the development of the economic growth rate of districts/cities in Bengkulu Province in 2019 and 2020.

Table 1. Economic Growth Rate of Districts/Municipalities in Bengkulu Province in 2019 and 2020 (%)

District/City	Year	
	2019	2020
South Bengkulu	4,97	0,26
Rejang Lebong	4,96	0,07
North Bengkulu	4,92	0,23
Kaur	4,98	0,12
Seluma	4,93	-0,01
Muko-Muko	5,03	0,02
Lebong	4,97	0,1
Kepahiang	4,89	0,06
Central Bengkulu	4,97	-0,06
Bengkulu City	5,41	-0,25
Bengkulu Province	4,94	-0,02

Source: (10)

Regarding employment, data from BPS Bengkulu Province shows that the negative impact of the COVID-19 pandemic also affects the number of unemployed. The Open Unemployment Rate (TPT) of Bengkulu Province increased by 0.81% from 3.26% in August 2019 to 4.07% in August 2020. Meanwhile, the poverty rate in March 2021 was 15.22%, higher than in March 2020 when the pandemic began, which was at 15.03%.

The composition of the number of workers in Bengkulu Province based on districts/cities shows that Bengkulu City absorbs the largest workforce compared to the districts in Bengkulu Province. The number of workers interested in Bengkulu City is 16.88%, while the area that absorbs the least is Central Bengkulu, which only absorbs 5.42% of the total workforce in Bengkulu Province.

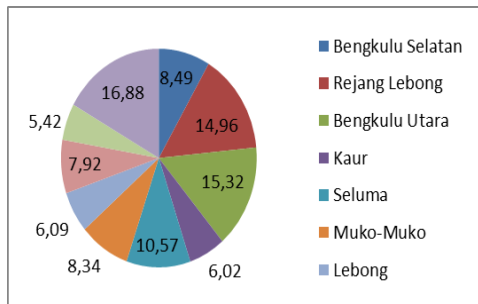


Figure 1. Percentage of the Number of Bengkulu Province Workers by District/City in 2020

Source: (11)

(12) states that productivity measures the efficiency of how much input can produce goods and services, calculated by comparing the amount of output to the number of workers (output per). productivity plays a very important role in mapping a specific sector's competitiveness or the whole economy. In addition, it also helps to create the necessary conditions in the process of economic development (13).

When associated with inequality, variations in the level of productivity in some or all sectors of the regional base economy are one of the fundamental factors affecting regional development inequality. Therefore, efforts to reduce economic disparities between regions must consider the determinants of productivity growth in economic sectors and calculate the relationship between determinants and productivity (13).

In the range of 2018 to 2020, the highest productivity figure was in 2019, which was 47.24 million rupiah/person/year. This figure increased from the previous year, at 45.84 million rupiah/person/year. In 2020, after the COVID-19 pandemic, which considerably impacted the sector, productivity decreased significantly to 44.91 million rupiah/person/year. This is inseparable from the large number of workers absorbed in the informal sector.

Research results (14) It is interesting to see that in 2019, the inequality of productivity between districts/cities in Bengkulu Province decreased compared to the previous year. The opposite happened in 2020, where the Williamson Index increased significantly to 0.47,

indicating that productivity inequality between districts/cities has risen again and is higher than in 2018.

Deep(15) and (16) explained that the impact of the COVID-19 pandemic occurred in the sector and market with the greatest impact on young workers, women, migrant workers, and people with disabilities who are usually absorbed in the informal sector. In low- to moderate-income countries, sectors severely affected by the pandemic tend to account for a large proportion of the informal workforce and workers with limited access to health and social protection services.

The occurrence of the COVID-19 pandemic in 2020 had an impact on various aspects of the economy, including employment conditions. This analysis will examine employment conditions in Bengkulu Province after Covid-19.

2. LITERATURE REVIEW

Covid-19 caused a huge impact on the market((15); (17)). Deep(15) The ILO report said about 81 million workers were thrown out of the force. That led to a 2.2% drop in the global pressure. In addition, the number of workers with wages below \$1.9 increased by 31 million. This is proof of the increase in the %age of poverty rate, which increased from 6.6 % in 2019 to 7.8 % in 2020.

Covid-19 has had a huge impact, particularly on the local market in major cities (18). The economic crisis caused by the COVID-19 pandemic has led to a decrease in the number of job offers published and workers' welfare offerings such as sports and health facilities. This is because entrepreneurs are trying to reduce production costs under the pressure of the pandemic.

Further, Caselli et al. (2020) (18) mentioned that labour market analysis and worker data during the Covid-19 pandemic show that the crisis caused by the Covid-19 pandemic is very deep, where this crisis not only affects the labour market in the short and medium term but also substantially changes how work is carried out.

According to the ILO, at the beginning of the pandemic period (April 2020), the key sectors affected by the decline in economic output were retail trade, accommodation and restaurant services, and the processing industry. Meanwhile, women workers face the pandemic's impact on demand and supply shocks. Sectors dominated by women workers and directly related to consumers are also the first sectors affected, such as fashion, retail, lodging, travel, and leisure agents. Lockdown policies, restrictions on economic activities, schools, and other policies implemented to suppress the spread of the COVID-19 virus have caused a drastic and sudden impact on workers and companies.

In many low- and middle-income countries, the sectors most affected by the pandemic are those with a large proportion of informal workers and workers with limited access to health and social protection facilities. This causes these workers to have the greatest risk of decreasing or losing income, so they become poor.

Labour productivity is quantitatively measured by comparing labour costs to total labour efficiency, usually calculated as the sum of production outputs. In a broader definition, productivity refers to the production process and is quantitatively written as the number of goods produced (output) divided by the number of factors of production used (13).

Research results (19) found that the determinants of labour productivity levels include education, health, government investment, and private investment. This means that inequality in labour productivity between regions can occur if these factors differ. Labour productivity is a medium to the long-term source of economic growth (12).

In addition to the accumulation of physical capital formation, labour productivity as a manifestation of human capital has a very important role in forming economic output. The weak competitiveness of a country is an effect of uncompetitive labour productivity, and one of the causes is the low level of labour education (20).

3. RESEARCH METHODS

This quantitative research uses secondary data from publications from the Central Bureau of Statistics of Bengkulu Province. To achieve the research objectives, two methods of analysis were used, namely the *Williamson Index (IW)* and descriptive analysis. Descriptive research provides an overview of employment conditions in Bengal Province, including the development of the number of workers per sector, the development of labour productivity, proportion, %age and other necessary analysis.

The Williamson Index (IW) formula calculates the labour productivity inequality index between districts/cities in Bengkulu Province. *Williamson Index (IW)* is one method that can be used to analyze disparities between regions. This analysis was conducted over the last three years (2019-2021) to see the development of labour productivity inequality, especially related to the impact of the COVID-19 pandemic.

The component used as an indicator of development is labour productivity, so the Williamson Index formula is used as follows:

$$IW = \frac{\sqrt{\sum_{i=1}^n (Y_i - Y)^2 * P_i / P}}{Y} \tag{1}$$

Where:

IW = Williamson Index of Labour Productivity of Bengkulu Province

Y_i = labour productivity of each district/city

Y = labour productivity of Bengkulu Province

P_i = Total workforce of each district/city

P = Total labour force of Bengkulu Province

Index number = 0 indicates that there is no inequality in labour productivity between districts/cities in Bengkulu Province. Index numbers above 0 indicate an imbalance in labour productivity between towns/communities. The greater the index number means, the greater the level of labour productivity inequality between districts/cities.

4. RESULT

In the publication of the State of the Bengkulu Provincial Labour Force in August 2021 (21), in Bengkulu Province, there were 1,021,775 people absorbed in the job market. The composition of labour absorption is dominated by Bengkulu City, with 175,725 people, and the least absorption in Central Bengkulu Regency, with as many as 55,089 people. The business field that absorbs the most labour is Agriculture, Forestry and Fisheries, which is 45.79 % of the total absorbed workforce.

The economic recovery process in 2021 will impact changes in employment in the Agriculture, Forestry and Fisheries Business Fields. There was a decrease in work of 15,915 people, and the largest decline came from Seluma Regency, which was 8,646 people. On the other hand, the largest increase in employment occurred in the business fields of Government Administration, Defense and Compulsory Social Security. This is related to the economic recovery policy taken by the government in overcoming the impact of the Covid-19 pandemic.

The dualism of labour indicated by the division of the employment sector is reflected in the composition of the workforce in the formal and informal sectors. In 2020, there was an increase in the %age in the informal sector, which means a decrease in the %age of the workforce in the formal sector. One of them is due to the impact of the COVID-19 pandemic, which has caused many job cuts in the legal sector. Terminating employment impacts the shift of formal work tenants to the informal sector. It is also followed by the entry of new workers who initially did not work in the informal sector.

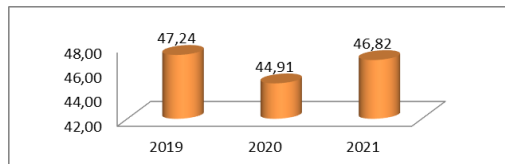
From Figure 2, it can be seen that during the COVID-19 pandemic in 2020, there was a considerable increase in employment in the informal sector from 630,952 people to 714,374 people. Conversely, in the formal sector, labour absorption has decreased. When the impact of the Covid-19 pandemic began to subside, and economic activity resumed, it was seen that the workforce absorbed in the formal sector increased, followed by a decrease in absorption in the informal sector.



Source: BPS. Data processed

Figure 2. Development of the Number of Formal and Informal Workers of Bengkulu Province in 2019-2021 (soul)

Increasing employment is a positive thing for the economy. However, an increase in labour absorption does not necessarily mean an increase in labour productivity. The following is presented the development of labour productivity from 2019 to 2021.

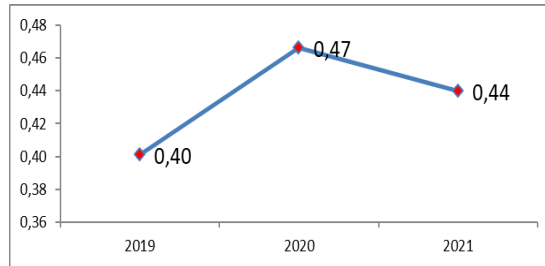


Source: BPS. Data processed

Figure 3. Labour Productivity of Bengkulu Province in 2019-2021 (million rupiah/year)

In the span of years before, during the pandemic and economic recovery period, the highest labour productivity was in 2019, which was 47.24 million rupiah/person/year. This figure then decreased when the pandemic occurred, whereas, in 2020, the COVID-19 pandemic had a considerable impact on the employment sector. It can be seen that labour productivity considerably reduced to 44.91 million rupiah/person/year. This is inseparable from the large number of workers absorbed in the informal sector. When there is a decrease in the number of casual workers and, followed by an increase in formal employment, average labour productivity increases again in 2021.

Labour productivity inequality between districts is measured using the Williamson Index. Figure 4 shows the development of the Williamson Index of labour productivity between districts / cities in Bengkulu Province during 2019 to 2021.



Source: calculation result

Figure 4. Williamson Index of Interdistrict/City Labour Productivity in Bengkulu Province 2019-2021

In 2020, the Williamson Index of labour productivity in Bengkulu Province increased significantly to 0.47. This indicates that labour productivity inequality between districts/cities is expanding, or in other words, there is a considerable and diverse difference in labor productivity between districts/cities in Bengkulu Province. To explain why the phenomenon occurs. The following is presented as a comparison of the labour productivity figures of districts/cities and Bengkulu Province from 2019 to 2021.

Table 2. Comparison of Labour Productivity of Districts/Municipalities and Bengkulu Province in 2019-2021 (million rupiah/labour/year)

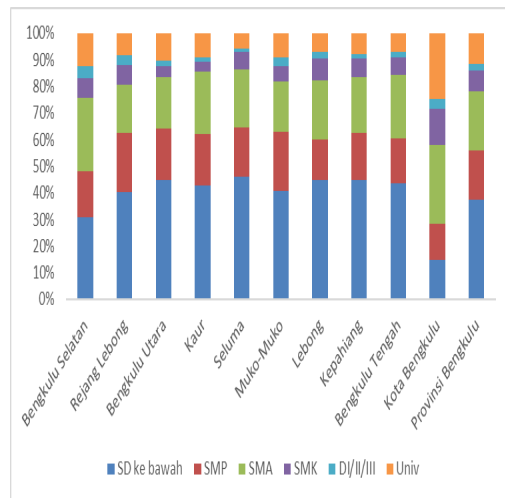
District/City	2019	2020	2021
South Bengkulu	45,60	41,39	39,10
Rejang Lebong	42,76	39,41	40,56
North Bengkulu	36,39	33,00	35,97
Kaur	36,48	18,74	37,51
Seluma	28,24	26,31	29,05
Muko-Muko	39,01	38,66	40,46
Lebong	34,52	33,85	35,30
Kepahiang	37,63	34,35	36,32
Central Bengkulu	52,30	51,60	52,74
Bengkulu City	85,65	87,84	90,89
Bengkulu Province	47,24	44,91	46,82

Source: BPS. Data processed

From Table 2 it can be seen that during the Covid-19 pandemic in 2020, the average labor productivity decreased from 47.24 million rupiah to 44.91 million rupiah per year. This was accompanied by a decrease in the lowest productivity figure to 18.74 million rupiahs (Kaur Regency), while the highest productivity increased to 87.84 million rupiahs (Bengkulu City). This condition indicates a growing productivity inequality and is shown by the Williamson Index in 2020, which increased from 0.40 to 0.47.

In 2021, the average labor productivity has increased significantly to 46.82 million rupiah per year. This increase came from increased labor productivity in Bengkulu City (90.89) and Kaur Regency (37.51). This improvement in productivity inequality conditions reflects the improvement in regional economic conditions after the COVID-19 pandemic. 2021 is the beginning of economic recovery marked by an increase in the regional economy as reflected by the rise in the value of Gross Regional Domestic Product.

The next comparison is the composition of the workforce by level of education. Figure 5 shows the design of the % age of the crew of districts/cities and Bengkulu Province based on the level of education possessed in 2021.



Source: (21)

Figure 5. Composition of the Percentage of Workers in Bengkulu District/City and Province Based on Education Level in 2021

Bengkulu City, which has the highest level of labour productivity, is an area that has the composition of labour with the best level of education. Workers with junior high school education and below only account for 28.23 % of the total workforce absorbed. It is very unequal with other regions where the %age of the crew is dominated by junior high school education and below.

Suppose productivity is associated with the level of education. So, it is necessary to see the development of the number of educated workers (with a minimum high school education) in the period before, during the pandemic, and during economic recovery.

In 2020, in general, in Bengkulu Province, there was a decrease in the %age of educated workers from 44.77 % to 44.19 %. The largest decline occurred in Muko-Muko Regency by -3.71 %, followed by Bengkulu City with a decrease of -1.93 %. The largest increase in the %age of

educated workers in 2020 occurred in Lebong Regency, which increased by 2.93 %, and Central Bengkulu Regency increased by 2.25 %. During the economic recovery process in 2021, the absorption of educated workers in Bengkulu Province increased by 1.69 %. The largest %age increase occurred in the North Bengkulu Regency at 3.91 %.

Regarding business fields, the calculation results show that the GRDP of all districts in Bengkulu Province is dominated by Agriculture, Forestry, and Fisheries Business Fields. Only Bengkulu City has the largest contribution from other business fields, namely Large Trade and Retail; Car and Motorcycle Repair.

Conditions that occur in all districts/cities show the large contribution of business fields followed by the large absorption of labour in the same business field. However, the absorption of many workers does not mean high labour productivity. Labour productivity will be related to the amount of output produced by one workforce. This will greatly depend on the ability of the workforce itself, mastery of technology, availability of capital in each business field and other things related to production.

The Information and Communication Business Field is the business field with the highest productivity in South Bengkulu District (fifth highest productivity of 39.10 million rupiah) and Bengkulu City (highest labour productivity of 90.89 million rupiah). As for Central Bengkulu Regency (the second highest productivity of 52.74 million rupiah), the business field with the highest labour productivity is Mining and Quarrying.

5. CONCLUSION

From the results of the research that has been done, several things can be concluded as follows:

1. When the economic recovery began to run in 2021, labour productivity inequality between districts/cities in Bengkulu Province experienced an improvement, as shown by the decline in the Williamson Index from 0.47 to 0.44.
2. There was a decrease in the total number of workers absorbed in 2021, with the largest contributor being the decrease in labour in the Agriculture, Forestry and Fisheries Business Fields.
3. Bengkulu City is the area with the highest labor productivity, while the area with the lowest labour productivity is Seluma Regency.
4. The difference between the highest and lowest labour productivity values will become smaller in 2021, indicating that economic recovery has an impact on improving labour productivity inequality conditions between districts/cities in Bengkulu Province.

From the conclusion can be advised:

1. The inequality in labour productivity between districts/cities that improved in 2021 should be a concern for the Regional Government. Employment in the formal sector that can encourage the reduction of productivity inequality can be encouraged through the provision of jobs in accordance with the available labour competencies.
2. Low productivity in business fields with the largest contribution and absorption of labour should be increased through improving the quality of labour, mastery of technology, more intensive use of capital and other things so that the average productivity of labour can increase.

Research Limitations and Recommendations

The study only compared conditions when the economic recovery began to run, which was 1 year after the COVID-19 pandemic, and was only carried out for the Bengkulu Province area. Analysis with a longer period and wider region is needed to be able to see changes in the employment sector after the Covid-19 pandemic. For future research, it is recommended to compare employment conditions with newer data and wider regions to provide a more complete picture of the impact of economic recovery on employment conditions.

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