



THE EFFECTS OF ECONOMIC GROWTH, WAGE, AND EDUCATION LEVEL ON EMPLOYMENT

Oleh
Ikhsan Amar Jusman
Sekolah Tinggi Ilmu Ekonomi (STIE) YPUP Makassar
Email: ikhsanamar40@gmail.com

Abstrak

The objective of study is to examine the effects of economic growth, wage, and education level on employment, comparing the case of region with high unemployment rate and the case of low unemployment rates in South Sulawesi. In general, the economic theory suggest that high economic growth, which indicates a growing number of national outputs, indicates a growing number of national output, indicates more employment and reduce unemployment. The method used is panel data regression combining the time series and cross section. The result suggests that in the low employment regions, the factors affecting employment are wages and levels of education. Meanwhile in the high unemployment grup, the most important factors influencing employment are economic growth and education level.

Kata Kunci: Economic Growth, Wage & Employment

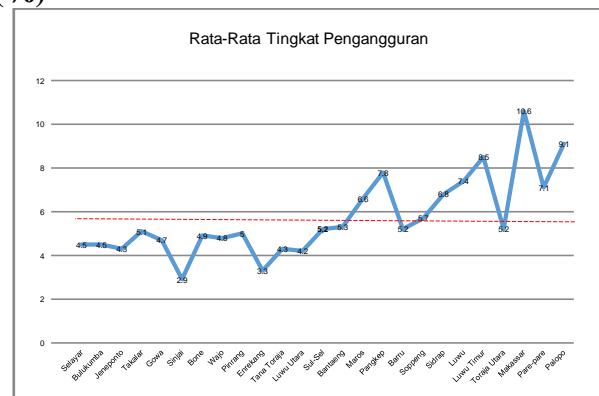
PENDAHULUAN

The employment problem is often found as one of the main concerns of the government policy in the region. The higher the unemployment rate will increase the probability of poverty, crime, and other socioeconomic phenomena in society. In the case of Indonesia, the unemployment rate is influenced by several factors, among which are important is the low level of education, less conducive of business development, as well as wage increases in the midst of a sluggish business environment. The human resource is also one of the factors that influence the unemployment rate and the economic growth that exist in the region. Population, particularly the more educated or skilled labour force can be a driver of the economic growth, through their labour productivity.

South Sulawesi is a province in Eastern Indonesia with a relatively high economic growth, which is higher than the national economic growth). However, the regional inequalities tend to be high across districts, mostly induced by different characteristics of economic sector of activities in each district. There are some districts characterized with more

dominated agricultural sector and labour-intensive industries, such as Selayar, Bulukumba, and Janeponto districts. Those districts then tend to have low level of unemployment rate (see Figure 1). On the other hand, there are districts with a relatively high level of unemployment rate, such as Makassar, Pare-pare and Maros, which are more characterized with less dominated agricultural sector and more capital intensive industries.

Figure 1. The Average of Unemployment Rate across Districts in South Sulawesi, 2010-16 (%)



The objective of the study is to examine the effects of economic growth, wage, and education level on employment, comparing the



case of region with high unemployment rate and the case of low unemployment rates in South Sulawesi. In general, the economic theory suggests that high economic growth, which indicates a growing number of national outputs, indicates more employment and reduce unemployment. However, a study by Nur (2011) showed that there are some regions experiencing an inconsistent relationship between economic growth and employment, where there is a high economic growth but accompanied by low level of employment growth.

Leshoro (2013) also examines the relationship between economic growth and employment, mentioning that what is needed is not merely growth but the quality of economic growth that support the employment growth. In other words, the economic growth should be seen not only in terms of quantity but more importantly the quality of economic growth itself. This is not without reason but based on the fact that some people remain poor despite living in the midst of a luxury environment.

In the region with the dominated capital-intensive industry rather than labor-intensive, the economic growth might also does not have a significant impact on employment. It might not actually harm people who have expertise in a specific field in the industry, but it can be detrimental to people with low skills. Capital intensive is usually based on the desire to reach the optimum production level with low production cost per unit, thus impacting the lower price level. This is because the larger work proportions are the machines, which work hours can change at any time, the absence of guidance in terms of unexpected costs such as overtime pay, and so forth.

The rest of the paper is as follows. After the introduction, the paper discusses the methodology used in the study. After methodology, the paper explains the empirical results and discussion. Finally, the last part of the paper is conclusion.

METHODOLOGY

The method used in this research is panel data regression combining the time series and cross section data of each district in South Sulawesi from 2010 to 2014, with the equation as follows:

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{it} + e_{it}$$

Table 1. List of Districts with High and Low Unemployment Rates

High Unemployment Rates	Low Unemployment Rates
Bantaeng	Selayar
Maros	Bulukumba
Pangkep	Jeneponto
Barru	Takalar
Soppeng	Gowa
Sidrap	Sinjai
Luwu	Bone
Luwu Timur	Wajo
Toraja Utara	Pinrang
Makassar	Enrekang
Pare-Pare	Tana Toraja
Palopo	Luwu Utara

The data used in the study is the 24 districts in South Sulawesi Province. The districts can be divided into 12 districts with high level of unemployment rate (above the unemployment rate of provincial level) and 12 districts with low level of unemployment rate (below the unemployment rate of provincial level). The high unemployment rate districts are mostly categorized as districts with more capital-intensive industries, mostly in the more modern sector, while the low unemployment rate districts are categorized as districts with more labour intensive industries, particularly the agricultural sector. The list of districts with their characteristics is presented table 1.



RESULTS AND DISCUSSION

The Effect of Economic Growth on Employment

In the case of region with low unemployment rate, the economic growth has a positive effect to employment, but it is not significant. The results do not match the prevailing theory that economic growth has had a major impact on employment. This is due to some factors: firstly, the economic growth has not optimally impacted the output of agricultural sector which is the main pillar of employment for those 12 districts in South Sulawesi. This can be reflected by the slow increase in the welfare of the sector compared with the welfare of workers outside the agriculture sector. Secondly, the lack of connection between the agricultural sector and the other sector outside the agricultural sector (i.e. agribusiness or agro-industry). The good connection between agricultural sector and industries will possibly increase in the mobility (flow) of the raw materials (output) among these sectors, which in turn will affect the increase of labour absorption. Thirdly, the lack of investment made in the agricultural sector that can actually accommodate a large of employment. Fourthly, the development of infrastructure is considered relatively slow so that the impact on investment in the potential economic sectors.

Table. 2 The Results for Low Unemployment Rate Region

Dependent Variable	Independent Variable	Coef.	Std. Err	Z	P> z
Employment	Economic Growth	0.069	0.031	2.20	0.02
	Average Wages	0.455	0.356	1.28	0.20
	Education	0.010	0.046	0.16	0.00
	Constant	4.515	4.853	0.93	0.352
R-squared	= 0.6418	F-stat	= 9.90		
		Prob	= 0.0194		

The results of this study differ from the findings of Ferdinan (2011) which states that economic growth measured through Gross Regional Domestic Product (GRDP) has a significant influence in influencing the employment in West Sumatera Province. The same is also found by Gusti and Suardika (2015) which states that economic growth has a significant effect on employment in Bali Province.

Table . 3 The Results for High Unemployment Rate Region

Dependent Variable	Independent Variable	Coef.	Std. Err	z	P> z
Employment	Economic Growth	0.017	0.034	0.50	0.61
	Average Wages	0.837	0.414	2.02	0.04
	Education	-0.444	0.099	-4.46	0.00
	Constant	2.966	5.533	0.54	0.59
R-squared	= 0.6310	F-stat	= 20.81		
		Prob	= 0.0001		

In contrast, in the region with high unemployment rate, the economic growth has a positive and significant effect on employment. When viewed from the average contribution of economic sector to this region, the largest contribution of output comes from the contribution of the industrial sector namely the manufacturing. In this region, there is a shift in the economic structure from which in general the agricultural sector which became the main driver of a regional economy shifted to the industrial sector with the increase of other supporting sectors such as trade and services sector. An increase in industry size can attract a more efficient and effective employment, as it brings benefits to all companies within the industry. If an economic activity can grow and grow rapidly, it will be able to encourage or positively influence other economic activities not only increase demand but also minimize costs.

The Effect of Wage on Employment

In the case of low unemployment rate region, wage has a positive and significant effect on employment. This means that any increase in wages will increase the level of employment. The result is in line with the results of the study conducted by Elnopembri (2007) which states that there is a positive and significant influence of wage rate on employment opportunities in Tana Datar regency. This is also in line with Widyaningsih (2010) concluding that wages affect the employment opportunities in Central Java with a more dominant proportion. However, this is of course different from the general theory of wages and employment stating that increases in wage rates will reduce employment, as mentioned by the wage theory, where wages will affect the high cost of production which can lead to a reduction or



increase in the number of employment. The results of study by Gindling and Terrell (2007), for example showed that wages have a negative effect on employment. Same with the results of research conducted by Sulistiawati (2012) which states there is a negative influence between wage rates on employment.

The positive and significant influence of wages on labor absorption obtained in this study can be attributed to the increase in wages which can increase the purchasing power of workers on goods and services. In other words, rising wages cause the demand for goods and services to increase as well. Since demand for labor is a derived demand for demand for goods and services, when demand for goods and services increases, it will have an impact on the increasing demand for labor.

This positive relationship between wage rates and employment can also be interpreted as an indication that in the economic sectors it does not move in the competitive labor market. One theory that explains the positive relationship between minimum wage and employment is the dynamic monopsony model developed by Machin and Manning (1994) and Manning (2003). The assumption of this dynamic monopsony model is, first, that there are some companies in the market that show that firms in the labor market are not single companies, although not as much in competitive markets. Second, workers have perfect information about better job opportunities elsewhere offered by other entrepreneurs over a period of time.

In contrast, the effect is not significant in the high unemployment rate region, which is dominated more by the manufacturing sector. In this case, the industrial sector is developing faster than other sectors. In the industrial sector, employment is not used as much in other sectors. This is because in this sector the production process moves very quickly, where the use of modern technology is very important to be used such as machines. In the industrial sector, the use of machines plays an important role in the production process efficiently when compared to employment.

Vol.15 No.6 Januari 2021

In other words, in this region most of them use the capital-intensive industry rather than labor intensive. This is also a consideration for companies that do not want to pay too much to labor because it can harm and increase the burden of the company so they prefer to use more capital. It does not actually harm people who have expertise in a field in the industry, but it can be detrimental to people with low skills. Capital intensive is usually based on the desire to reach the optimum production level with low production cost per unit, thus impacting the lower price level. This is because the larger work proportions are the machines, which work hours can change at any time, the absence of guidance in terms of unexpected costs such as overtime pay, and so forth. This activity relies heavily on high technology, high work productivity and stable, and product quality can be accounted for.

The Effect of Education on Employment

In the region with low level of unemployment rate, the level of education has a negative and significant effect on employment, which means that the higher level of education will decrease the level of employment. The results of this study support the findings of Ruli (2013) on the effect of education on the absorption of labor in the agricultural sector in Jombang, showing that in the agricultural sector which absorbs a larger workforce compared to other sectors, the level of education of the workers is elementary school (low level of education). Meanwhile, workers with the higher level of education such as junior high school to the university level, more likely to enter the other sectors, such as trade, finance, services, and so forth. This proves that in general that to enter the agricultural sector, employment does not require higher education. The results of this study differ from Saepudin (2011) in the findings that the average length of school is influential and positive on employment. Same with Fuad's (2013) finding that education levels have a positive and significant effect on employment.

In contrast, in the case of region with high unemployment rate, the level of education partially have a positive and significant effect on

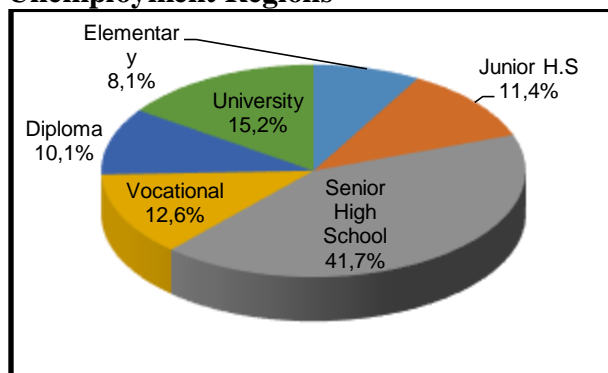
<http://ejurnal.binawakya.or.id/index.php/MBI>

Open Journal Systems



the employment, which means that the higher the education of individuals, the higher the opportunity to enter the labor market which has an impact on the increase of employment. This study supports Fuad's findings (2013), which states that the level of education has a high influence on employment. Similarly, a study by Buchari (2016) shows that the level of education has a significant positive impact on the absorption of labor in the industrial sector. Irawan (2017) also found that formal education significantly affected the absorption of labour in Barabai district.

Figure 2. Education Composition in High Unemployment Regions



As presented in Figure 3, it can be seen that the high unemployment group are dominated by workers with higher education level (senior high school), while there is only a small proportion of workers with elementary education level. The conditions are more likely to occur in the industrial sector. In this case, the industrial sector is the main driver of the economic sector and has a large contribution to the Gross Regional Domestic Product as well as the absorption of labour. The high level of education that must be owned by the workforce is an absolute requirement to enter the industry sector because the sector has high productivity, and this also applies to other economic sectors that require high levels of productivity.

The human capital is one of the important factors that support technological change and development, while technology and physical capital investment and population are the functions of output growth. In the theory of new economic growth or called endogenous growth

theory, external factors are involved as determinants of economic growth and human capital as one of these factors. In addition, human capital is a form of ability or skill possessed by a person and shows the quality of the individual.

Conclusion

In the low unemployment regions, production technology tend to be labor intensive, as can be seen from the largest contribution of Gross Regional Domestic Product from the agricultural sector. In the low unemployment group, the factors affecting employment are wages and levels of education. Meanwhile, in the high-unemployment group, production technology tend to be capital intensive, but the sector is relatively low in the absorption of labour because in this sector the use of high technology such as machines is more dominant than human resources. In the high unemployment group, the most important factors influencing employment are economic growth and education level.

REFERENCES

- [1] Buchari, I. 2016. Pengaruh Upah Minimum dan Tingkat Pendidikan Terhadap Penyerapan Tenaga Kerja Sektor Manufaktur Di Pulau Sumatera Tahun 2012-2015. *EKSIS*, 11(1), 75–85.
- [2] Central Bureau of Statistics of South Sulawesi. 2013 - 2015. *Provinsi Sulawesi Selatan Dalam Angka*. Sulawesi Selatan: BPS Provinsi Sulawesi Selatan.
- [3] Elnopembri. 2007. *Analisis Faktor-Faktor yang Mempengaruhi Penyerapan Tenaga Kerja Industri Kecil di Kabupaten Tanah Datar*. Universitas Gajah Mada.
- [4] Ferdinan, H. 2011. *Pengaruh Pengeluaran Pemerintah, PDRB, Dan Upah Riil Terhadap Penyerapan Tenaga Kerja Di Sumatera Barat*. Institut Pertanian Bogor.
- [5] Fuad, M. K. 2013. *Analisis faktor yang mempengaruhi penyerapan tenaga kerja pada industri konveksi Kota Malang*. Universitas Brawijaya.
- [6] Gindling T.H and Terrell, K. 2007. The Effects of Multiple Minimum Wage Throughout the Labour Market: The Case of



- Costa Rica. *Journal of Labour Economics*, 14(1), 485–511.
- [7] Gusti, I. A., & Suardika, K. 2015. *Pengaruh Inflasi, PDRB dan Upah Minimum Terhadap Penyerapan Tenaga Kerja Di Provinsi Bali*. UGM.
- [8] Irawan, H. 2017. Dinamika Ekonomi. Pengaruh Sektor Pendidikan Formal Terhadap Penyerapan Tenaga Kerja Di Kecamatan Barabai. *Jurnal Ekonomi Dan Bisnis*, 10(1), 211–224.
- [9] Leshoro, T. A. 2013. Does Economic Growth Lead Employment in South Africa??. *Journal of Economics and Behavioral*. *Journal of Economics and Behavioral*, 5(6), 336–345.
- [10] Machin, S. and Manning, A. 1994. The Effects of Minimum Wages on Wage Dispersion and Employment: Evidence from The UK Wages Council. *Industrial and Labor Relations*, 47(2), 319–329.
- [11] Manning, A. 2003. *Monopsony in Motion*. Princeton: Princeton University Press.
- [12] National Central Bureau of Statistics 2013 - 2015. *Produk Domestik Regional Bruto Provinsi Sulawesi selatan*. Sulawesi Selatan: BPS Provinsi Sulawesi Selatan.
- [13] Nur, S. 2011. *Adakah Anomali Hubungan Antara Pertumbuhan Ekonomi dan Pertumbuhan Penyerapan Tenaga Kerja*. Institut Pertanian Bogor.
- [14] Ruli, D. 2013. *Pengaruh Tingkat Pendidikan dan PDRB terhadap Penyerapan Tenaga Kerja Sektor Pertanian Di Kabupaten Jombang*. STKIP Jombang.
- [15] Saepudin. 2011. *Pengaruh Investasi Swasta, Tingkat Upah Minimum, dan Rata-Rata Lama Sekolah Terhadap Penyerapan Tenaga Kerja Di Provinsi Jawa Tengah*. Pascasarjana UGM.
- [16] Sulistiawati, R. 2012. Pengaruh Upah Minimum Terhadap Penyerapan Tenaga Kerja dan Kesejahteraan Masyarakat Di Provinsi Indonesia. *Jurnal EKSOS*, 8(3), 195–211.
- [17] Widyaningsih, S. 2010. *Analisis Faktor-Faktor yang Mempengaruhi Kesempatan*

Kerja di Jawa Tengah Periode Tahun 1985-2007. Universitas Muhammadiyah Surakarta.