

ANALYSIS OF FACTORS AFFECTING LABOR ABSORPTION IN EAST KALIMANTAN PROVINCE 2019-2021

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Abstract – *This study aims to measure the direction and magnitude of the effect of Economic Growth in the Agriculture, Fisheries and Forestry Sector, Economic Growth in the Mining and Quarrying Sector, Economic Growth in the Processing Industry Sector, Economic Growth in the Financial Services and Insurance Sector, and Investment on Labor Absorption in East Kalimantan Province for the 2019-2021 period. The analytical method used in this research is panel data regression analysis. The estimation results show that the Fixed Effect Model (FEM) was chosen as the best estimated model. The FEM estimated model shows that Economic Growth in the Agriculture, Fisheries and Forestry Sector, Economic Growth in the Mining and Quarrying Sector, Economic Growth in the Manufacturing Industry Sector, Economic Growth in the Financial Services and Insurance Sector, and Investment have no effect on Labor Absorption. This result shows that during the period studied there was no significant increase in labor absorption. This research data shows that the increase in labor absorption during the period studied is not stable every year. Since 2020, generally in Indonesia and especially in East Kalimantan Province, several economic sectors have stopped their growth due to the Covid-19 pandemic. As a result, there has been a significant decrease in employment in East Kalimantan Province. However, it is also necessary to be aware of the possibility of an economic development trend that is increasingly biased towards employment because it is increasingly capital intensive.*

Keywords: *Economic Growth Sector, Investment, Labor Absorption, Panel Data*

I. INTRODUCTION

Economic development is a multidimensional process that involves major changes in both social structure, community attitudes and national institutions, as well as accelerated economic growth, reduction of inequality and eradication of absolute poverty (Todaro & Smith 2012: 16). The economic development of a region is influenced by the resources owned by the region, both natural resources (SDA) and human resources (HR). According to Arsyad (2019), regional economic development is a process in which local governments and their communities manage the resources in the area and form a partnership pattern between local governments and the private sector to create new jobs and stimulate the development of economic activities in the region. Currently, with the paradigm of placing the population as the subject of development, it can actively participate in economic activities as labor. Therefore, economic development cannot be separated from the role of humans in managing it. Where humans are labor, development input. Labor is a very basic aspect of human life because it covers the social and economic spheres. One of the important objectives in economic growth is the provision of sufficient employment to increase the growth of the labor force. (Campolieti et al, 2014).

Labor is one of the most important resources in a factory, company, or industry. In general, labor is a person who does work that produces goods or services. Labor is able to do jobs in various sectors, both the formal sector that receives economic protection from the government, and the non-formal sector that is not organized (Kuncoro, 2018). According to Simanjuntak (2021) labor includes residents

who have or are working, who are looking for work, and who carry out other activities such as attending school and taking care of the household. job seekers, attending school, and taking care of households even though they are not working, but are physically able and can participate in work at any time. Meanwhile, according to Law No. 13 of 2003 Chapter I Article 1 Paragraph 2, it is stated that labor is every person who can do work in order to produce a good and or service, either with the aim of meeting their own needs, or to meet the needs of the community.

Labor absorption is the number of jobs that have been filled from the large number of people who work (Indayati, 2017). The working population is absorbed and distributed in economic sectors. The absorption of the working population is due to the demand for labor. Therefore, labor absorption can also be said to be labor demand (Konadi, 2013).

East Kalimantan province is an area rich in natural resources, both oil and gas and non-oil and gas have the potential to increase economic growth positively. An increase in investment invested in an industry due to increased demand will affect the number of workers in these production activities. In general, the increase in production output is caused by an increase in production factors, from several factors that play an important role in increasing output. There are labor and investment factors (Taufik 2014).

II. METHODS

The analytical tool used in this study is panel data regression analysis with the following econometric model:

$$\log TK_{it} = \beta_0 + \beta_1 GROWTHSPPK_{it} + \beta_2 GROWTHST_{it} + \beta_3 GROWTHSIP_{it} + \beta_4 GROWTHJKA_{it} + \beta_5 \log INV_{it} + \varepsilon_{it}$$

Where :

TK : Labor Absorption (Soul)

GROWTHSPPK : Economic Growth in the Agriculture, Fisheries and Forestry Sector (%)

GROWTHSTP : Economic Growth of Mining and Quarrying Sector (%)

GROWTHSIP : Economic Growth of Manufacturing Industry Sector (%)

GROWTHJKA : Economic Growth of Financial Services and Insurance Sector (%)

INV : Investment (Million Rupiah)

ε : Error Term

β_0 : Constant

$\beta_1 \dots \beta_5$: Independent variable regression coefficient

i : Cross section data, City/Regency in East Kalimantan

t : Time series data, 2019-2021

III. RESULTS AND DISCUSSION

The estimation results of the econometric model in advance with the Pooled Least Square (PLS), Fixed Effect Model (FEM) and Random Effect Model (REM) approaches along with the model selection test results are summarized in Table 1.

Table 1. Estimation Results of Panel Data Regression Econometric Model - Cross section

Variabel	Koefisien Regresi		
	PLS	FEM	REM
<i>C</i>	5,622170	11,91139	11,84732
<i>GSPPK</i>	0,049000	-0,005753	-0,005134
<i>GSTP</i>	0,028193	-0,001614	-0,001359
<i>GSIP</i>	-0,053303	0,001035	0,000605
<i>GSJKA</i>	-0,203351	0,004225	0,002154
<i>logINV</i>	0,477232	-0,015439	-0,010436
<i>R²</i>	0,606317	0,999000	0,105720
<i>Adjusted. R²</i>	0,524300	0,998068	-0,080588
<i>Statistik F</i>	7,392553	1070,883	0,567448
<i>Prob. Statistik F</i>	0,000255	0,000000	0,724039
Uji Pemilihan Model			
(1) Chow			
Cross- Section $F(9,15) = 654,7936$; Prob. $F(9,15) = 0,0000$			
(2) Hausman			
Cross-Section random $\chi^2(5) = 17,3204$; Prob. $\chi^2 = 0,0039$			

Source: BPS, processed.

The Chow test and Hausman test show that the Fixed Effect Model (FEM) is selected as the best estimated model, as seen from the probability or empirical significance of the F statistic and the χ^2 statistic, which are 0.0000 (<0.01) and 0.0039 (<0.01), respectively. The complete estimation results of the Fixed Effect Model (FEM) are shown in Table 2 and Table 3.

Tabel 2. Estimasi Model Fixed Effect Model (FEM)

$\log TK_{it} = 11,91139 - 0,0057GSPPK_{it} - 0,0016GSP_{it}$
(0,3236) (0,3642)
$+ 0,0010GSIP_{it} + 0,0042GSJKA_{it} - 0,0154\log INV_{it}$
(0,8242) (0,5604) (0,4307)
$R^2 = 0,9990; DW = 2,59984; F. = 1070,883; Prob. F = 0,0000$

Source: BPS, processed. **Notes:** *Significant at $\alpha = 0.01$; **Significant at $\alpha = 0.05$; ***Significant at $\alpha = 0.10$; The number in parentheses is the probability value of the t statistic.

Table 3. Regional Effects and Constants

No	District/City	Region Effect	Constant
1	Paser	0,0858	11,9972
2	Kutai Barat	-0,4860	11,4253
3	Kutai Kartanegara	1,0886	13,0000
4	Kutai Timur	0,4216	12,3330
5	Berau	-0,1161	11,7952
6	Penajam Paser Utara	-0,5062	11,4051
7	Mahakam Ulu	-2,2016	9,7097
8	Balikpapan	0,9140	12,8254
9	Samarinda	1,1904	13,1018
10	Bontang	-0,3905	11,5208

Source: BPS, processed.

Table 2 shows that the estimated FEM model exists with the probability or empirical significance of the F statistic of 0.0000 (<0.01), with a coefficient of determination (R^2) of 0.99; which indicates that the estimated FEM model has very high predictive power. However, this predictive power must be interpreted critically, because separately from the five variables in the econometric model, it turns out to have no influence on employment.

Table 3 shows that the region with the highest constant value is Kota Samarinda, which is 13.1018. This means that the economic growth of the agriculture, fisheries, and forestry sectors, the economic growth of the mining and

quarrying sector, the economic growth of the manufacturing sector, the economic growth of the financial and insurance services sector, and investment in East Kalimantan Province tend to have higher labor absorption compared with other districts in East Kalimantan Province. After Pontianak City, the two regencies with the largest constants are Kutai Kartanegara Regency and Balikpapan Regency.

The lowest constant value is owned by Mahakam Ulu Regency, which amounted to 2.2016. This means that related to the influence of economic growth variables in the agriculture, fisheries, and forestry sectors, economic growth in the mining and quarrying sector, economic growth in the manufacturing sector, economic growth in the financial and insurance services sector, and investment in East Kalimantan Province tend to have quite low labor absorption compared to other districts / cities. After Mahakam Ulu Regency, the two districts with the lowest constant are Penajam Paser Utara Regency and West Kutai Regency.

IV. CONCLUSION

The results of this study indicate that economic growth in the agriculture, fisheries and forestry sector, economic growth in the mining and quarrying sector, economic growth in the manufacturing sector, economic growth in the financial services and insurance sector, and investment have no effect on employment in East Kalimantan Province in 2019-2021.

Technological developments have made several economic sectors begin to utilize the power of machines and tools used for the production process to make it faster and more efficient so that labor absorption in several economic sectors is not maximally absorbed, the lack of contribution to the financial and insurance services sector caused by a lack of regional equity causes labor absorption to be not optimal, less than optimal domestic investment in building economic growth in East Kalimantan Province makes the level of labor absorption decrease. This can happen because in the year of this study it did not show a

significant increase in labor as seen in the data used in this study which shows that the level of employment is unstable in each year, and in 2020 in Indonesia, especially East Kalimantan Province, there was a co-19 pandemic which caused several economic sectors to stop due to the pandemic, causing a significant decrease in employment in East Kalimantan Province.

Related to the research findings, the East Kalimantan Provincial Government needs to improve related labor program facilities and open employment opportunities so that labor absorption is more optimal, especially in economic sectors, the government also needs to carry out policies related to labor, both foreign and domestic labor so that labor absorption can be absorbed optimally.

REFERENCES

- Campolieti, Michele. (2014). "A New Look at Variation in Employment Growth in Canada: The Role of Industry, Provincial, National and External Factors." *Journal of Economic Dynamics and Control* 41: 257–275.
- Chusna, A. (2013). Pengaruh Laju Pertumbuhan Sektor Industri, Investasi, dan Upah Terhadap Penyerapan Tenaga Kerja Sektor Industri di Provinsi Jawa Tengah Tahun 1980-2011. *Economics Development Analysis Journal*, 2(3).
- Hadi, M Fikry. (2018). "Analisis Penentuan Sektor Unggulan dalam Penyerapan Tenaga Kerja di Kabupaten Indragiri Hulu; Pendekatan Tipologi Klassen." *Jurnal Akuntansi & Ekonomika* 8 (2): 198–208.
- Hasibuan, A.P.H., Ginting, R., & Effendi, I. (2019). Faktorektor yang Mempengaruhi Penyerapan Tenaga Kerja Pada Sektor Pertanian di Sumatera Utara. *AGRI SAINS: Jurnal Ilmiah Magister Agribisnis*, 1(1), 10-17.
- Inradewa, I Gusti Agung, and Ketut Suardhika Natha. (2015). "Pengaruh Inflasi, PDRB, dan Upah Minimum Terhadap Penyerapan Tenaga Kerja di Provinsi Bali." *E-Jurnal EP Unud* 4(8):923–50.
<https://www.neliti.com/publications/44563/pengaruh-inflasi-pdrb-dan-upah-minimum-terhadap-penyerapan-tenaga-kerja-di-provi>.
- Kutor, Senanu Kwasi. (2014). "Development and Underdevelopment of African Continent: The Blame Game and the Way Forward." *Iiste* 4 (7): 14–20. www.isst.org.
- Lindiarta, Ayudha. (2014). "Analisis Pengaruh Tingkat Upah Minimum, Inflasi, dan Jumlah Penduduk Terhadap Penyerapan Tenaga Kerja di Kota Malang (1996-2013)." *Jurnal Ilmiah Mahasiswa FEB Universitas Brawijaya* 2 (2): 1–15.
- Muslihatinningsih, Fivien, Miftahul Walid, and I Wayan Subagiarta. (2020). "Penyerapan Tenaga Kerja di Provinsi Jawa Timur." *E-Journal Ekonomi Bisnis dan Akuntansi* 7 (1): 1.
<https://doi.org/10.19184/ejeba.v7i1.12742>.
- Nurrohman, R., & Arifin, Z. (2015). Analisis Pertumbuhan Ekonomi dan Penyerapan Tenaga Kerja di Provinsi Jawa Tengah. *Jurnal Ekonomi Pembangunan*, 8(1), 247-260.
- Pangastuti, Yulia. (2015). "Analisis Faktorektor yang Mempengaruhi Penyerapan Tenaga Kerja di Provinsi Jawa Tengah." *Economics Development Analysis Journal* 13 (2): 141.
- Purnamawati, Dina Listri, dan Mail Rifki Khoirudin. (2019). "Penyerapan Tenaga Kerja Sektor Manufaktur di Jawa Tengah 2011-2015." *Riset Ekonomi Pembangunan* 4.
<http://dx.doi.org/10.31002/rep.v4i1.1340>.
- Puspita, Shafa Nanda, Sri Maryani, and Herry Purwantho. (2021). "Analisis Faktorektor yang Mempengaruhi Penyerapan Tenaga Kerja di Provinsi Jawa Tengah." *Jurnal Ilmiah ekonomi dan Bisnis* 13(2):141. <http://141.htm>

- ps://doi.org/10.20884/1.jmp.2021.13.2.4546.
- Rahayu, Yunie. (2019). “Pengaruh Upah Minimum Provinsi dan PDRB Terhadap Penyerapan Tenaga Kerja di Provinsi Jambi.” *Journal Development* 7 (2): 174–188. <https://doi.org/10.53978/jd.v7i2.143>.
- Rakhmawati, Atifatur, and Arfida Boedirochminarni.(2018). “Analisis Tingkat Penyerapan Tenaga Kerja Sektor Industri di Kabupaten Gresik.” *Jurnal Ilmu Ekonomi* 2: 74–82.
- Rochmani, T. S., Purwaningsih, Y., & Suryantoro, A. (2016). Analisis Penyerapan Tenaga Kerja Sektor Industri di Provinsi Jawa Tengah. *Jurnal Ilmu Ekonomi dan Pembangunan*, 16(2).
- Sulistiawati, Rini. (2012).“Pengaruh Upah Minimum Terhadap Penyerapan Tenaga Kerja dan Kesejahteraan Masyarakat di Indonesia.” *Jurnal Eksos* 8: 195–211.
- Wafiqah, Ulya. (2023). “Tesis Determinan Penyerapan Tenaga Kerja di Kawasan Timur Indonesia (Kti).” *Thesis*.
- Wasilaputri, Febryana Rizqi.(2016). “Pengaruh Upah Minimum Provinsi, PDRB dan Investasi Terhadap Penyerapan Tenaga Kerja di Pulau Jawa Tahun 2010-2014.” *Pendidikan dan Ekonomi* 5. (2): 162–175
- Widiastuti, Ni Made Santi. (2014). “Analisis Penyerapan Tenaga Kerja pada Sektor Usaha Kecil Menengah (Studi Kasus Ukm Kerajinan di Kabupaten Gianyar) Disusun Oleh :
Ni Made Santi Widiastuti.”*Jurnal Ilmiah Universitas Brawijaya* 13 (1): 5. <http://download.portalgaruda.org/article.php?article=189575&val=6467&title=ANALISIS>.
- Zakiati,(2016). Analisis Faktor-Faktor yang Mempengaruhi Penyerapan Tenaga Kerja di Indonesia (*Doctoral dissertation*, Universitas Andalas).