Factors Influencing Overseas Labor Migration

Yahning Kusuma Asih[1], Sitti Retno Faridatussalam[2]

[1]*dept. Faculty of Economics and Business, Muhammadiyah University of Surakarta, Indonesia.*
[2]*dept. Faculty of Economics and Business, Muhammadiyah University of Surakarta, Indonesia.*

ABSTRACT: *This study aims to determine the effect of Gross Regional Domestic Product, District Minimum Wage, Education and Poverty on labor migration abroad. The research was conducted in 5 regencies in East Java, namely Ponorogo Regency, Malang Regency, Kediri Regency, Magetan Regency, Tulungagung Regency in the 2014-2020 period. This research method uses panel data regression and is estimated by Eviews 10. The results of this study indicate that GRDP has a significant effect on labor migration abroad. However, UMK, Education and Poverty have no significant effect on labor migration abroad.*

I. Introduction

The phenomenon of overseas migration is an element with great potential to improve the quality of life, encourage economic growth, and overcome poverty problems. supporting the success of development in a region. A large population needs to be supported by good quality as well. A large and quality population is expected to be able to increase productivity which can have a positive impact on people's welfare. However, the number and structure of the population is a factor one of the components of the population that can affect the number and structure of the population is migration. The size of people migrating in an area has an impact on their economy, poverty which causes immigrant workers as a way out. On the other hand, working in other countries apart from getting high wages immigrant workers also benefit from differences in currency exchange rates. So, this makes workers earn higher wages than they work in the country (Prihanto, 2013).

International Migration is the movement of people from their country of origin across their country's borders in increasing numbers with many factors. Economic factors, factors of the country's own low economic level, socio-cultural factors and political stability factors are the causes for someone to migrate internationally. There are many economic benefits of international migration. For workers, the income they get in a new place is higher than their place of origin. With them earning a much higher income, it makes their standard of living better. They are also able to provide education, job opportunities and organize the future for their children.

The phenomenon of sending labor is part of international migration which is motivated by various factors. Labor migration that occurs is a difference in growth and economic equity between one country and another. Workers whose country's economy is low will move to countries with higher economies that choose a good environment, greater job opportunities and higher wages cause people to choose to work abroad as immigrant workers (Risqika and Sukamdi, 2012). The number of immigrant workers from East Java can be said to be quite large. Tens of thousands of East Java residents work abroad every year (PMI Placement and Protection Data, 2018). Among the regencies in East Java which annually send their residents to work abroad include, Ponorogo, Malang, Tulungagung, Kediri and Magetan while for several other areas such as Pacitan, Madiun, Gresik each year is not too big.

Graph of Placement of Indonesian Migrants in East Java Province 2014-2020
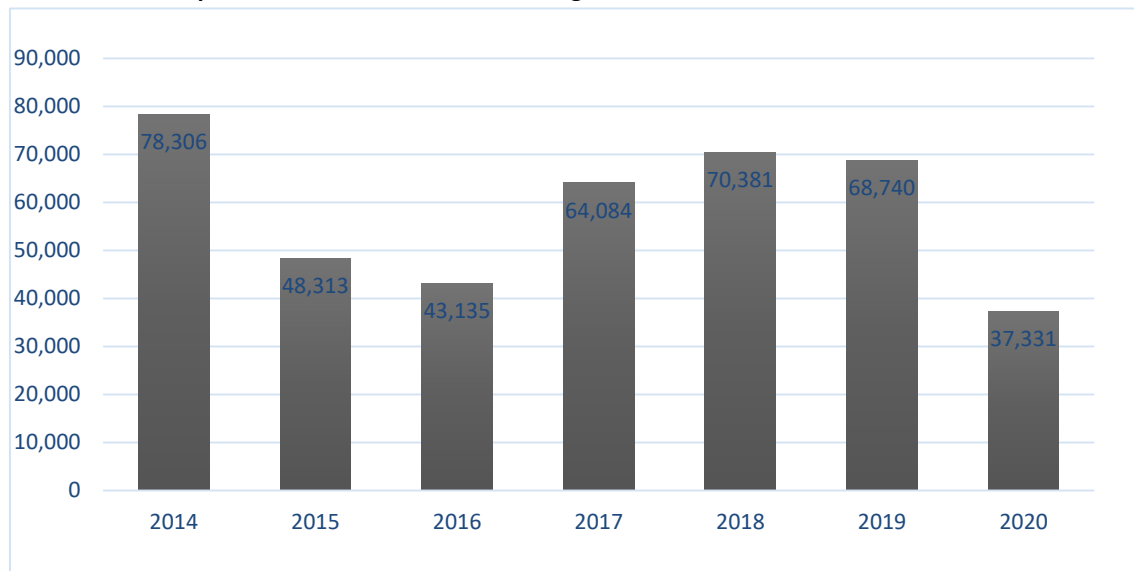
Source: BNP2TKI

Based on the graph above, it shows the number of placement of migrant workers abroad. In 2014 the number of workers sent abroad was quite high, amounting to 78,306 people. In 2015 it was 48,313 people and in 2016 it was 48,135 people. Furthermore, in 2017 there was a fairly high increase of 64,084 people, then in 2018 there was an increase of 70,381 people. In 2019 the number of labor migration abroad decreased by 68,740 people, then in 2020 there was a very drastic decrease of 37,331 people. This decrease occurred due to the spread of the virus which resulted in the entire world closing access. This resulted in an unstable economic condition due to increased unemployment.

The narrowing of employment opportunities and the high number of unemployed have forced some of Indonesia's population to leave the country to obtain jobs. The condition of the Indonesian state as a developing country in a certain period of time has not been able to provide sufficient employment opportunities because, as the population increases in Indonesia, unemployment increases more rapidly from year to year, it will be more serious. Then the potential that will occur creates social vulnerability and has a full impact on cases of poverty. (Siswosoemarto, 2012).

Graph of Total Poverty East Java Province 2014-2020
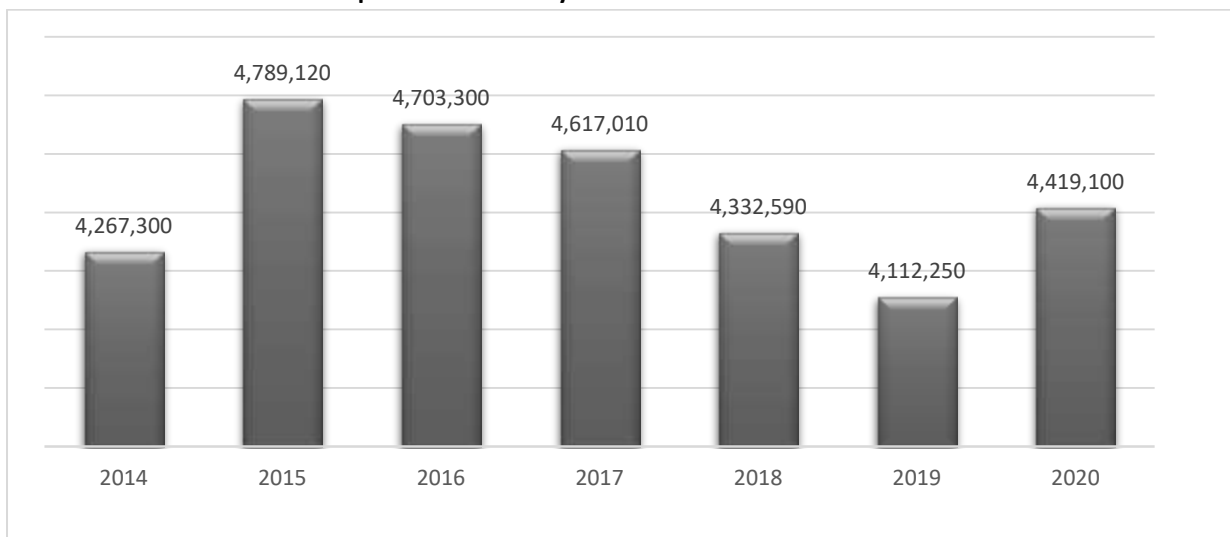
Source: BPS data processed

The graph above shows the number of poverty in East Java Province which fluctuates every year. In 2014 the number of poor people in East Java Province was 4,267,300 people. Then in 2015 the number of poor people experienced a very drastic increase of 4,789,120 people. In 2016 the number of poor people decreased by 4,703,300 people. In 2017 there was also a decrease of 4,617,010. In 2018 the number of poor people decreased by 4,332,590 people. In 2019 the number of poor people has decreased quite drastically by 4,112,250 people. Furthermore, in 2020 the number of poor people in East Java Province has increased quite drastically by 4,419,100 people.

The impact of poverty is greatly increasing due to the lack of employment which causes unemployment and the wages earned are insufficient causing residents to migrate in order to support the economy and the future of their families. A worker from a country with a lower growth rate will move to a country with a higher economic growth rate, good environmental conditions, greater employment opportunities and higher wages (Puspitasari, 2017).

Wages are the main resource for a person, therefore wages must be sufficient to meet the needs of workers properly. Sumarsono (2003) wages are compensation from the company for employees who perform a job or service which is valued in the form of money that is determined based on agreements or legislation that is paid on the basis of work agreements between companies and employees. The minimum wage policy in Indonesia is contained in the Minister of Manpower Regulation Number: Per-01/Men/1999 and the Manpower Law No. 13 of 2003. The minimum wage as referred to in the regulation of the minister of labor Number: Per-01/Men/1999 concerning the minimum wage is the lowest monthly wage consisting of the basic wage including fixed allowances.

The number of workers who have only graduated from elementary, middle and high school is a high number every year, with the number of workers in Indonesia who have diploma, undergraduate or postgraduate education. This is beneficial for Indonesia because it can utilize workers with low levels of education. The informal sector is offered for workers who only need skills and higher education. The wages given are high enough so that the hope for workers after migrating abroad can support a better economy. Todaro (2006) states that there is a positive correlation with educational opportunities and migration. Someone with higher education tends to migrate more than those with lower education. This is based on someone with higher education will face a higher difference in wage rates, and have high-income job opportunities. In general, migration participation rates increase with education.

The phenomenon of migration in Indonesia, especially in East Java Province, is one of the people's choices as an alternative to supporting the economy. The rise in the number of unemployed in Indonesia and the low level of education in Indonesia are the main causes of poverty, therefore they become workers (immigrants) abroad whose economy is more advanced so as to maximize economic equity. In addition, the promised wages are higher and the work done does not require higher education, you only need to have expertise in a certain field. It is hoped that workers who go abroad will be able to add to the country's foreign exchange and guarantee the future of their children. From an economic point of view, it must pay attention to the welfare of society. this opportunity to increase economic growth through quality human resources. Therefore, this study will examine "Factors Influencing Migration of Migrant Workers Overseas". This study will analyze the effect of Gross Regional Domestic Product, District Minimum Wage, Education and Poverty on labor migration abroad based on 5 Regencies in East Java for the 2014-2020 period.

II.   Literature Review and Hypotheses Development

2.1.   Migration

Migration is the movement of people with the aim of settling from one place to another that exceeds political/state boundaries or administrative/part boundaries of a country. Migration that exceeds national borders is called international migration, while internal migration is the movement of people that occurs within the boundaries of a country, either between regions or between provinces (Befita, 2014). Todaro expressed the opinion that a person makes the decision to migrate because of economic motives. In the Expected Income Model of rural-urban migration, he states that this motivation is an expected economic

consideration, namely the hope of getting a job and the hope of earning a higher income than in the village. Expected earnings are measured by the difference in real earnings between rural and urban jobs. In other words, migrants will migrate if their income is greater than the costs incurred (Todaro, 2003).

2.2. GRDP

The definition of GRDP according to the Central Bureau of Statistics (2004) is the total added value generated for all business areas in a region or is the total value of final goods and services produced by all economic units in a region. GRDP consists of GRDP at constant prices. GRDP at current prices illustrates the added value of goods and services calculated using prices in the current year, while GRDP at constant prices shows the added value of these goods and services calculated using prices prevailing in a particular year as the base year.

2.3. District Minimum Wage

The minimum wage is the minimum standard of a company or industry player to provide compensation in the form of a salary to its workers in a business or work environment. In each region the fulfillment of needs is very different as seen from the Decent Living Needs (KHL), therefore each region or district has its own district minimum wage standard. District/city minimum wage (UMK) is the minimum wage that applies in district/city areas.
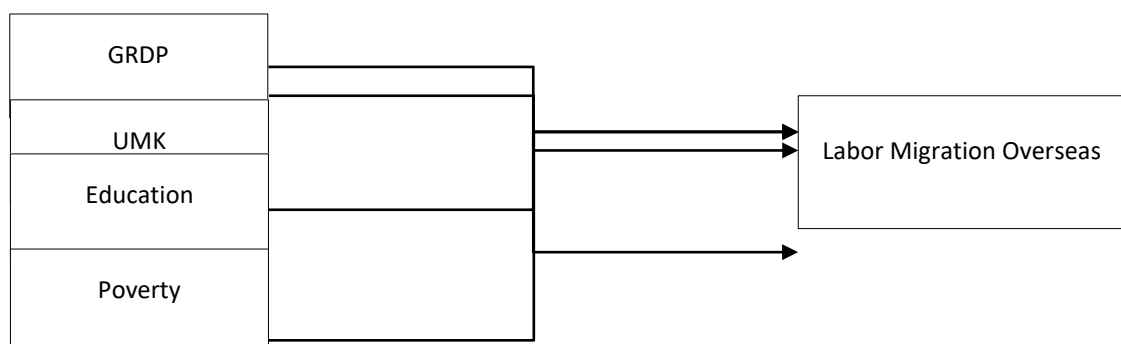
2.4. Education

Education is one of the important factors in the development of human resources. Education not only adds ways of doing good work as well can make decisions at work or in other words education provides knowledge not only directly with the implementation of tasks but also a basis for self-development and the ability to utilize all the facilities and infrastructure that are around us for the smooth implementation of tasks (Kamaludin, 1999).

2.5. Poverty

Poverty is defined as a person's inability to meet the basic needs of their life. On a broader scale, poverty is considered as a result uneven distribution of development outcomes in an area. According to (World Bank, 2005) one of the causes of poverty is due to a lack of income and assets to meet basic needs such as food, clothing, housing, acceptable levels of health and education. Poverty is also related to limited employment opportunities and usually those who are categorized as poor do not have a job, and their level of education and health is generally inadequate.

III. Conceptual Framework

The following is a framework that shows the relationship between GRDP, UMK, education, and poverty on labor migration abroad.

IV. Methods

In this study, secondary data was used (2014-2020) and cross sections covering five regencies in East Java Province. This study uses data on Gross Regional Domestic Product, District Minimum Wage, Education, and Poverty on Migration of Migrant Workers Overseas. This research was sourced from the Central Bureau of Statistics and BNP2TKI. To estimate the effect of Gross Regional Domestic Product (GRDP), District Minimum Wage (UMK), Education and Poverty on Overseas Labor Migration, panel data regression analysis is used with the econometric model as follows:

$$TKIit = β0 + β1PDRBit + β2UMKit + β3EDUit + β4KEMit + εit$$

V. Results

Based on the estimation results of panel data regression with the Common Effect Model (CEM) Test approach, Fixed Effect Model (FEM) Test, Random Effect Model Test (REM) the effect of Gross Regional Domestic Product (GRDP), District Minimum Wage (UMK), Education and Poverty on Overseas Labor Migration seen in the following table:

Table of Panel Data Regression Estimation Results

Variable	Regression Coefficient		
	CEM	FEM	BRAKE
C	28987.36	22659.89	28987.36
$GRDP$	0.000147	0.000511	0.000147
UMK	-0.000147	-0.002632	-0.000147
EDU	-3521.552	-3566.364	-3521.552
KEM	-0.004923	0.000221	-0.004923
R^2	0.478880	0.780818	0.478880
adjusted. R^2	0.409398	0.713378	0.409398
F statistics	6.892083	11.57788	6.892083
Prob. F statistics	0.000465	0.000001	0.000465

Source: Processed Data

To determine the best model from the estimation results of the Common Effect Model (CEM) test, Fixed Effect Model (FEM) test, Random Effect Model (REM) test, the Chow test and Hausman test were used.

Model Selection Test

Chow test

The Chow test was carried out to determine the best estimation model between the Common Effect Model (CEM) and the Fixed Effect Model (FEM. The hypothesis in the Chow test is as follows: H0 is accepted if the statistical probability > α and H0 is accepted if the statistics is < α. The results of the Chow test are shown in the table following:

Table of Chow Test Regression Results

Effect Test	Statistics	df	Prob.
Cross-section F	8.954204	(4,26)	0.0001
Chi-square cross-sections	30.312761	4	0.0000

Based on the table above, it can be seen that the results of the Chow Test The Influence of PDRB, UMK, EDU and KEM on Migration of TKI, shows a prob.F value of 0.0001 <0.05, so it is rejected. Thus it can be concluded that the selected model is the Fixed Effect Model (FEMs). H_0

Hausman test

The Hausman test was carried out to determine the best estimation model between the Random Effect Model (REM) and the Fixed Effect Model (FEM. The hypothesis in the Hausman test is as follows: H0 is accepted if the probability X2statistics > α and H0 is rejected if X2statistics < α. Hausman test results are shown in Table below this.

Table of Hausman Test Regression Results

Effect Test	Chi-Sq. Statistics	Chi-Sq. df	Prob.
Random cross-sections	35.816816	4	0.0000

Based on the table above, it can be seen that the results of the Hausman Test, The Effect of GRDP, UMK, EDU and KEM on Migration of Migrant Workers, shows that the Chi-Sq Prob value is 0.0000 <0.05 so it is rejected. Thus it can be concluded that the model chosen is the Fixed Effect Model (FEM). H_0

Based on the results of the Chow Test and Hausman Test above, it can be concluded that the selected estimator model is the Fixed Effect Model (FEM). The complete FEM estimation results are shown in the table below.

Table of Fixed Effect Model (FEM) Estimation Results

TKI_{it} = 22659.89 + 0.00051 − 3566.364 + 0.000221$PDRB_{it}$ − 0.002632$UMK_{it}EDU_{it}KEM_{it}$

     (0.0047)**   (0.3068)   (0.2023)   (0.9061)

R^2 = 0.7808 ; Adj = 0.7133 ; F. Stat = 11.5778 ; Prob F-Stat = 0.0000R^2

Information:*Significant at α = 0.01; ** Significant at α = 0.05; *** Significant at α = 0.10; The number in brackets is the probability of the t statistic.

Influence Validity Test (t test)

The t test was conducted to find out whether each independent variable has a significant effect on the dependent variable by assuming other variables are constant. H0 partial significance test in this study is β1,2,3,4 = 0; or Gross Regional Domestic Product (GRDP), District Minimum Wage (UMK), Education and Poverty individually have no effect on labor migration abroad. Meanwhile, Ha stated that β1,2,3,4 > 0 or Gross Regional Domestic Product (GRDP), District Minimum Wage (UMK), Education and Poverty each had a positive effect on labor migration abroad; H0 is accepted if the t-statistical probability > α and H0 is rejected if the t-statistical probability ≤ α. The results of the influence validity test for all independent variables are summarized in the table below.

Table of Influence Validity Test Results

Variable	t-statistics	Prob	Alpha	Conclusion
GRDP	3.0917	0.0047	< 0.01	Significant effect at α = 0.01
UMK	-1.0425	0.3068	>0.10	No significant effect on α = 0.10
EDU	-1.3080	0.2023	>0.10	No significant effect on α = 0.10
KEM	0.1190	0.9061	>0.10	No significant effect on α = 0.10

Source: Processed

Data

Based on the table above, it can be seen that the statistical probability for GRDP is 0.0047 <0.05 so that H0 is rejected, then the GRDP variable affects labor migration abroad. Meanwhile UMK has a statistical probability of 0.3068 > 0.10, Education 0.2023 > 0.10 and Poverty 0.9061 > 0.10, so H0 is accepted, then UMK, Education and Poverty have no effect on labor migration abroad.

Thus GRDP has a positive effect while UMK, Education and Poverty have a negative effect on Migration of Migrant Workers Overseas.

Simultaneous Significance Test (F Test)

Simultaneous significance test (F test) was conducted to find out the independent variables affect the dependent variable together (simultaneously). The hypothesis in the F test is: the independent variables simultaneously have no significant effect on the dependent variable and: the independent variables

simultaneously have a significant effect on the dependent variable. H_0 is rejected if the p-value (p-value) probability FStatistics < α. H_0 is not rejected if the p-value (p-value) of the F-Statistics probability > α. $H_0 H_A$

Based on the table above, it can be seen that the p-value (p-value), probability, or empirical significance of the probability statistic F is 0.0000 <0.05 so it is rejected, so it can be concluded that GRDP, MSE, Education and Poverty together have a significant effect on Overseas Labor Migration. H_0

Coefficient of Determination (R2)

Based on Table 4. It can be seen that the R2 of the estimated model, namely the Fixed Effect Model (FEM) is 0.7808 meaning that 78.08% of the variation in Migration of Migrant Workers Overseas can be explained by variations in GRDP, District Minimum Wage, Education and Poverty and the remaining 21, 92% is influenced by other variables that are not included in the research model.

VI.   DISCUSSION

Gross Regional Domestic Product (GRDP) has a positive and significant effect on Migration of Migrant Workers. That is, an increase in the amount of GRDP in a region is a motivating factor for someone to migrate to that region. GRDP itself is a reflection of the level of social welfare. The higher the amount of GRDP in a region, the higher the level of social welfare and the level of development in the region. In addition, besides being a driving factor, the increase in GRDP is also a factor that attracts someone to migrate to the region. The higher the GRDP value in an area, the higher the number of migrants entering the region. GRDP is also one of the benchmarks for the success of the development of a region. so as to create community welfare in the area itself. With improving economic conditions as seen from the stability or increase in GRDP every year in the area, it will attract many migrants to migrate to the region (Febdianti, 2017).

Furthermore, on the UMK variable, this study has a relationship direction compatible with a Philips theory which says that the relationship between wages and unemployment has a negative slope. This means that when wages increase by one unit, the unemployment rate will decrease by one unit. Vice versa, when wages decrease by one unit it will cause an increase in the unemployment rate by one unit. The agreement between this study and research conducted by Hartanto (2017) regarding the relationship between wages and unemployment has no significant effect because wage conditions in East Java Province are rigid. This wage rigidity is caused by the establishment of a minimum wage by the local government that is not in accordance with the market and the power of labor unions who want to increase their welfare by requesting an increase in the minimum wage. The five districts that are the focus of this research experience an increase in wages every year but this is not significant for overseas migration because the variation in the increase is small so it doesn't have much effect. The setting of the minimum wage in the five districts is relatively low because the minimum wage set is still below the necessities of a decent life where the prices for the necessities of life are getting higher but the migration rate of TKI is relatively low. As we know that the attractive factor for someone to migrate is not only influenced by the level of wages, but can be influenced by favorable environmental and living conditions, such as climate, housing, schools, and other community facilities. In addition, the factors that attract and encourage a person to migrate are not only influenced by the level of wages, but can be influenced by a decrease in natural resources, a decrease in demand for certain goods whose raw materials are increasingly difficult to obtain such as mining products, wood or agricultural materials, the presence of activities in big cities, entertainment venues, cultural centers as an attraction for rural communities to migrate to the region, and others (Sari, 2018).

From the estimation results it is known that the education variable has no effect on employment absorption in the five districts that are the focus of this study. This shows that the education hypothesis has a positive and significant effect on employment in the city/district of Central Java (Yunie, 2020) is rejected. However, there are similarities with previous research, namely (Sihombing, 2017) which states that education has a negative impact on employment, the reason is that with a high level of education, the opportunity to

work is smaller because it is not matched by the availability of employment opportunities for the population. Likewise, the results of Widayana Darsana's research (2020) explain that education has a non-universal effect on employment in cities/districts in the province of Bali. Final, The poverty variable has an insignificant relationship to migration in the five districts. Based on the results of this analysis, it can be concluded that H4 in this study was rejected. This research is in line with research conducted by Muragarra et al (2011) which stated that a lower percentage of poor people migrated, especially in developing countries.

VII.   CONCLUSION

This study aims to find empirical evidence regarding the influence of GRDP, UMK, education, and poverty. The results of this study prove that GRDP has a significant effect on the migration of Indonesian workers abroad. Meanwhile, the UMK, education, and poverty have no significant effect on the migration of Indonesian workers abroad.

VIII.   REFERENCES

1. Agisty, Malla Dewi. (2013). Analisis Faktor-Faktor Yang Mempengaruhi Migrasi Internasional Dan Implikasinya Terhadap Pemberantasan Kemiskian. Skripsi, Program sarjana IPB.
2. Alhudhori, M. 2017. Pengaruh IPM, PDRB dan jumlah pengangguran terhadap penduduk miskin di Provinsi Jambi. *Ekonomis: Journal of Economics and Business*, *1*(1), 113–124.
3. Atmojo, A. T. 2021. Analisis Migrasi Penduduk ke Pulau Jawa dan Faktor-Faktor yang Mempengaruhinya (Doctoral dissertation, Universitas Muhammadiyah Surakarta).
4. Badan Pusat Statistik. <www.bps.go.id> . Diakses tanggal 10 Januari 2023.
5. Badan Pusat Statistik. 2014-2020. *Jumlah Penduduk Miskin menurut Kabupaten/Kota di Jawa Timur*. Maret. Surabaya.
6. *Data Penempatan dan Perlindungan PMI*. (2018). PUSLITFO, BNP2TKI
7. Faizin, M. 2020. Analisis Pengaruh PDRB Perkapita, IPM, Kemiskinan dan Pengangguran Terhadap Migrasi Tenaga Kerja ke Luar Negeri. *Jurnal PROFIT: Kajian Pendidikan Ekonomi dan Ilmu Ekonomi*, *7*(2), 113-120.
8. Kamaludin, Rustin. 1998. Pengantar Ekonomi Pembangunan. Jakarta: Lembaga Penerbit Fakultas Ekonomi Universitas Indonesia.
9. Kamaludin, Rustin. 1999. *Pengantar Ekonomi Pembangunan.* Jakarta: Lembaga Penerbit Fakultas Ekonomi Universitas Indonesia.
10. Nisa, K. *Analisis Faktor-Faktor Yang Mempengaruhi Tingkat Migrasi Tenaga Kerja Indonesia (Tki)(Studi Kasus Pada 6 Provinsi Tahun 2008-2017)* (Bachelor's thesis, Fakultas ekonomi dan bisnis uin jakarta).
11. Prihanto, P. H. 2013. *Kebijakan moratorium pengiriman tenaga kerja ke luar negeri dan dampaknya terhadap peningkatan kualitas pekerja migran Indonesia*. Jurnal Paradigma Ekonomika, April.
12. Puspitasari, Wahyu Indah. 2017. *Faktor-Faktor Yang Mempengaruhi Migrasi Tenaga Kerja Ke Luar Negeri Berdasarkan Provinsi Di Indonesia*. Jurnal Ilmu Ekonomi Terapan : UNAIR
13. Salvatore, D. 1997. *Ekonomi Internasional,* Edisi kelima jilid 1. Erlangga.
14. Siswosumarto, R., Hasibuan, V., & Iskandar, D. 2012. Intelijen Ekonomi : Teori dan Aplikasi. Gramedia Pustaka Utama, Jakarta.
15. Sumarsono, Sonny. 2003. *Ekonomi Manajemen Sumber Daya Manusia dan Ketenagakerjaan. Jember: Penerbit Graha Ilmu.*
16. Todaro, M. 2003. Pembangunan Ekonomi di Dunia Ketiga, edisi ke-8 jilid 1. Ghalia Indonesia.
17. Todaro, Michael P. & Smith, Stephen C. 2006. *Pembangunan Ekonomi: Edisi Kesembilan*, Jilid 1. Jakarta : Penerbit Erlangga.
18. Undang - Undang Ketenagakerjaan No. 13 tahun 2003. Tentang Ketenagakerjaan. Jakarta: Departemen Ketenagakerjaan.

19. World Bank Institute. 2005. Introduction to Poverty Analysis: Poverty Manual. World Bank Institute.
20. YUNIARTI, T. C. 2019. *Determinan Migrasi Internasional di Indonesia.*