

The Analysis of the Impact of GDP, FDI, Minimum Wage on Employment in Indonesia

Thomson Sitompul^{1*}, Yansen Simangunsong²

¹ Labor & Demographic Economics, Universitas Indonesia, Indonesia

² Economics, Universitas Bengkulu, Indonesia

Abstract

Unlike the previous study in determinant of labor absorption, which focused on economic sector and took up regional scope, this paper examines the impact of Gross Domestic Product, Foreign Direct Investment and Minimum Wages on labor absorption in Indonesia which take the national scope and aggregate labor by using secondary series of time series data (1990-2015). This study contributes to the limited literature on aggregate employment and national scope as the impact of the minimum wage, GDP, FDI in developing countries, especially in Indonesia. By using multiple linear regression models, surprisingly, we find that GDP and Minimum Wages have a positive and significant impact to increase employment while FDI does not affect employment in Indonesia.

Keywords: *Employment; GDP; FDI; Minimum Wage*



This is an open access article under the CC-BY-NC license.

INTRODUCTION

The main problem with Indonesian employment is the absorption of labor, where there is a high growth of the workforce (labor supply), but not accompanied by growth in employment (demand for labor) that is able to absorb the growth of the workforce. This condition is called the excess supply of labor. The inconsistency between labor supply and labor demand, where the number of labor offers is higher than the labor demand will create a gap. This gap between labor supply and labor demand is called unemployment. The following Indonesian employment conditions for the period 2011 to 2015 can be seen in Table 1.

The imbalance between the growth of the workforce and employment opportunities will lead to higher unemployment. Increased unemployment will result in a waste of resources and the potential of the existing workforce, increase the burden of the community, the main source of poverty and encourage an increase in unrest in the social sector, and inhibit economic development in the long run (Indonesian Ministry of Labor, 2004). Sumarsono (2003) explained that employment is influenced by several factors including national income, investment and labor wage rates. Changes to these factors will affect the level of employment. The existence of job opportunities provides opportunities for workers who are looking for work to become a source of income so that they can meet the needs of life. In theory, the demand for labor is based on its ability to produce goods and services. In other words, the demand for labor is influenced by the amount and level of production. The greater the number and level of products produced, the greater the income received (Simanjuntak, 1998). The concept of income used in this study is the GDP (Gross Domestic Product).

* Corresponding author
thomsonsitompul@gmail.com; mrshllyansen@gmail.com
DOI: <https://doi.org/10.31098/ijmesh.v2i2.17>

Tabel 1. Indonesian Labor Conditions 2011 - 2015 (in million people)

Activities	Years				
	2011	2012	2013	2014	2015
Working Age Population	173.8	176.8	179.9	182.9	186.1
Work Force (SoL)	116.1	119.8	120.1	121.8	122.3
Working Population (DoL)	107.4	112.5	112.7	114.6	114.8
Open unemployment	7.4	6.13	6.17	5.19	6.18

Source: Indonesian Central Bureau of Statistics (2016)

Data explained that in a five-year period, Indonesia's GDP experienced a positive trend or increase. But if further calculations are made, it can be calculated that the percentage of annual growth always decreases. The highest GDP growth occurred in 2011 at 6.2% with a GDP value of 7.72 quadrillion rupiahs. However, the unemployment rate in the same year represents the highest unemployment rate over a five-year period, namely 7.4% (data not presented). Furthermore, the factors that influence employment are an investment. According to (Sukirno, 2000) the increase in investment will increase aggregate demand for national income, so this increase will always be followed by increases in employment opportunities. The increase in capital goods as a result of the investment will increase production capacity in the future, this development will stimulate changes in national production and employment opportunities. The data explains that in a 5-year period, the value of FDI in Indonesia has increased from 2010 - 2014 and subsequently depreciated in 2015. In that period, the highest increase occurred in 2011, where the value of FDI increased by 35.3%. This certainly has a positive impact on employment. Where the absorption of labor in the same year is the highest absorption of labor in the five-year period. While the lowest growth occurred in 2015, wherein the five-year period, FDI experienced the only negative growth of 21.3% (data not presented).

Absorption of labor is also inseparable from the role of the government as a policymaker related to level setting wage. Simanjuntak (2016) stated that changes in wage rates will affect employment. The wage rate is one of the production costs for the company. If the level of wages is high, then the amount of labor demand will decrease and vice versa. Data shows that in the period 2010 to 2015, the minimum wage experienced an increase or a positive trend every year. The lowest growth in the wage rate occurred in 2011 at 8.8%. This supports the company to absorb more workers so that in the same year there was also the highest growth in employment. The highest growth in the minimum wage rate in the five-year period occurred in 2014, which was 22.2% (data not presented). This research is conducted to analyze the effect of gross domestic product, investment and national minimum wage level on employment in Indonesia.

LITERATURE REVIEW

The theory of the impact of minimum wage on youth employment (the two-sector model) was first introduced by Welch (1974). There was only an uncovered and covered sector in the economy and

perfect mobility applied. Increasing minimum wages not only reduced employment, but also predicted to be able to shift workers from the covered to the uncovered sector. Increasing wages above excessive market standard rates will ultimately reduce workers who work in the covered sector due to increases in business productivity figures. The reduction of workers in the covered sector will force those who are unemployed to enter the uncovered economy. As another option, youth who have a choice can use their time to continue to higher education (school enrollment) by dividing the time to be part-time workers. When minimum wages are enacted, the wages of workers in the first class will increase so that the company will reduce the use of substitution effects of labor used to increase the use of machinery (Kaitz, 1970).

When the minimum wage increases, the supply of youth labor will increase but the demand for youth labor decreases so unemployment occurs. The youth unemployment rate will increase along with the increase in minimum wages. The economic model can explain the effect of minimum wages on labor demand and supply that causes unemployment as follows:

$$UR' = \frac{(1 - UR)}{MW} (ns - nd)$$

UR is the unemployment rate, MW is the minimum wage while ns is the supply elasticities and nd is demand elasticities of labor. UR 'is a derivative of youth unemployment rate related to the increase in minimum wages where the value of UR is less than 1 (<1), the minimum wage is positive, ns is positive and nd is negative which means when the minimum wage increases the demand for labor decreases and labor supply increases so unemployment increases (Kaitz, 1970).

In Figure 2.1, assumed that picture (a) and (b) are labor markets with minimum wages and the equilibrium while (c) is labor demand without minimum wages. The balance of wages is shown by w_0 while c represents the proportion of labor in the covered sector. The existence of a minimum wage causes wages in the covered sector to increase to w_m and $(\dot{w} = \frac{wm-w_0}{w_0})$ labor in the covered sector also decreases. The supply of labor in the uncovered sector is the supply of aggregate labor minus the demand for labor in the covered sector ($S_u = S - D_c$). But when labor is reduced in the covered sector, the labor in the uncovered sector will increase. W_1 describes the shifting from S_u to S'_u , which means that wages decrease from W_0 to W_1 so that the labor supply in the uncovered sector increases from S_u to S'_u created the residual supply of uncovered labor is $S'_u = S - D_c(w_m)$. If someone who looks for a job with a wage equal to W_m can find a job then the labor supply becomes $S(w_m)$ but W_m is the wage in the covered sector work, at this wage level, the workforce is only $D_c(w_m)$.

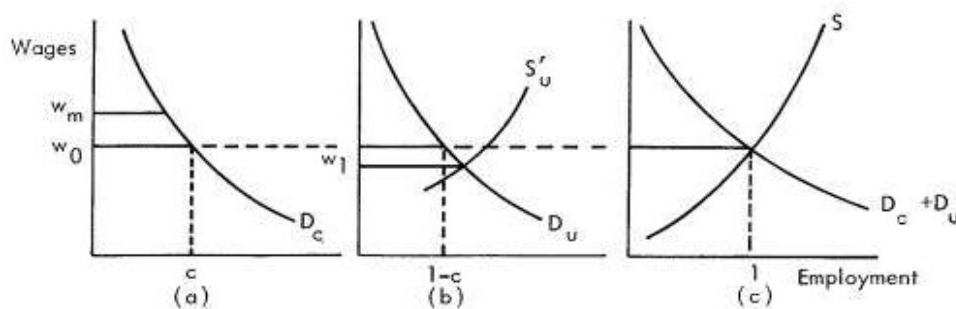


Figure 1. Minimum Wage & Demand for Covered and Uncovered Labor

Source: Welch (1974)

Besides the minimum wage, the demand for labor is also influenced by (Sumarsono, 2003) the ups and downs of market demand for the products of the company concerned. If the company's production increases, producers tend to increase their production capacity, for this purpose the producer will increase the use of his workforce. The increase in investment will increase aggregate demand and national income. The increase in capital goods as a result of the investment will add production capacity in the future and this development will stimulate changes in national production and employment.

Excluding other variables and focus only on the impact of minimum wage on labor, there was some previous studies that have conducted studies related to this. The impact of minimum wages on workers has long been debated in both developed and developing countries in research related to the labor market (Bishop, 2018; Majchrowska & Strawński, 2018; Bhorat, Kanbur, & Stanwix, 2014). The impact of rising minimum wages is more felt by vulnerable groups such as women, youth workers, and workers with low levels of skills/education (Sabia, Burkhauser, & Hansen, 2012; Neumark, & Wascher, 2007; Jardim et al., 2017; Congressional Budget Office, 2014). This study focuses on analyzing the impact of minimum wages on youth workers namely covered youth workers and unemployed. There are different impacts caused by minimum wages on youth workers (Deng, 2018; Ni, Wang, & Yao, 2011). Research conducted by Sturn (2018) on OECD countries proves that the longterm impact of rising minimum wages on workers with low skills in both women and especially youth workers will cause a substantial increase in unemployment for the group with low estimates of labor elasticity. Mixon & Stephenson (2016) found that the main cause of the loss of jobs in the summer in Kato, United States is the increase in minimum wages while increasing the participation of adult labor force (senior), cyclical macroeconomic factors, decreasing manufacturing employment has a small impact loss of jobs during the summer. Using the two-sector model developed by Welch (1974), Coomer et al. (2013) state in the study that the effect of minimum wages in the covered sector is greater than its influence in all sectors of employment. The increase in minimum wages decreases the use of workers in the covered sector and increases the number of workers in the uncovered sector.

However, on the contrary, Giuliano (2013) in his study found that a mandatory increase in minimum wages would reduce overall employment in the United States but an increase in minimum wages in the United States instead led to a significant increase in youth workers, especially youth and better-qualified workers. So that the increase in minimum wages can increase youth workers in the United States. Card & Krueger (2015) in his study entitled "Myth and measurement: The new economics of minimum wage" examined the total impact of minimum wages on total workers, workers in the retail trade industry and worker in fast food restaurants who found that wages the minimum does not affect workers in total, retail trade and fast-food restaurants.

Fridhowati (2011) analyzes the factors that influence employment in the industrial sector in Java, Indonesia using panel data analysis. The results of panel data analysis show that the provincial real minimum wage, industrial sector GDP, foreign investment in the industrial sector, domestic investment in the industrial sector have a significant impact on the employment of the industrial sector with a 95 percent confidence level. Partially, the GDP of the industrial sector and provincial minimum wages have a positive and significant effect on the employment of the industrial sector. Investment in both domestic and foreign industrial sectors does not significantly affect the employment of industrial sectors. Aryani, et al (2015) examined the factors that affect employment in the industrial sector in the city of Madiun, Indonesia with small enterprises, GDP and investment as variables that are thought to influence labor absorption in the Madiun. Small enterprises, GDP, and investment simultaneously and partially have a significant effect on the positive direction of employment in the industrial sector in Madiun. This explains that the increase in

these three variables will increase employment in the Madiun. Danang (2011) analyzes the factors influencing labor absorption in Surakarta, Indonesia. The results showed that partially investment, government expenditure and exports had a significant effect to decrease employment.

Syuhada, et al (2014) show that wages have a significantly negative effect on employment and gross fixed capital formation has a positive and significant impact on employment opportunities in micro-enterprises in Jambi, Indonesia. The interest rate and regional wages have a significantly positive effect on employment. Wage is more dominant in influencing employment opportunities in small enterprises in Jambi. Alexandi and Marshafeni (2013) show that the variable small enterprises, consumption, investment and GDP have a significant influence on employment in the agricultural sector. Small enterprises and investment have a negative impact on employment in the agricultural sector while the consumption variable and GDP have a positive relationship to increase employment. Akmal (2010) shows that GDP variable had a significant positive effect on labor, *ceteris paribus*, minimum wage variables significantly also have a positive effect on labor absorption, *ceteris paribu*. The increase in investment has a significant positive effect on employment to increase employment. Vitalia (2014) shows that the variables that influence labor absorption in Semarang, Indonesia are an investment, government expenditure and exports. These three variables have a positive effect on employment to increase employment. The difference in this research with previous studies lies in the kind of variables, scope, years of research and research methods. Previous studies took up the regional scope, while this study took the national scope. This study takes the national scope with aggregate labor so that the variables used are macro data.

RESEARCH METHOD

This explanatory research analyzes the impact of an independent variable on dependent variable. Data used in this study are time series (1990-2015) taken from the Indonesian Central Bureau of Statistics and Indonesian Ministry of Labor which is conducted periodically every year in all regions of Indonesia (34 provinces). Currently, research on the impact of minimum wages on workers using time series/panel data is more frequent than cross-sections. The previous study states that time series or panel data is believed to provide time variations in research so that the variation is able to get a strong test in the hypothesis or provide a more complete estimate of the impact but it must be believed that the cross-section data and time series are equally capable of impacting the variables consistent workers (Kalachek, 1969; Katz, 1973; Najmul et al., 1991; Freeman, 1970; Welch & Cunnigham, 1978; Vazquez et al., 2013; Muravyev & Oshchepkoy, 2007; Kai-Uwe, 2012; Meyer & Wise, 1978; Linneman, 1973).

Inferential analysis in this study uses multiple regression with functional log-log / double log / constant elasticity models to see the impact of minimum wages, GDP, FDI on workers. By using the model in this multiple regression method it will be able to show the size of the elasticity of employment to the minimum wage and other variables, namely the percentage change in workers due to changes in minimum wages and other variables through the slope β_2 in the model below. The models formed in this analysis are:

$$\text{Ln}Y = a + \beta_1 \text{Ln}X_1 + \beta_2 \text{Ln}X_2 + \beta_3 \text{Ln}X_3 + e$$

Where Y is the labor absorption, β is parameter while X1 is GDP, X2 FDI, X3 Minimum Wage, e is disturbance error and Ln explains logarithm natural. To produce the BEST model of regression, classical OLS assumption consist of heteroscedasticity, multicollinearity, autocorrelation, linearity and normality test, firstly processed In the log-log model, the elasticity coefficient between X and Y is always constant meaning that in this study if Ln X changes 1 unit then the change is always the same even though the

elasticity is measured in any $\ln X$. So this model is called constant elasticity. Elasticity is defined as $\frac{\Delta \ln Y}{\Delta \ln X} = \beta$; constant which means if X increases by 1 percent then Y will decrease by β percent ($\beta < 0$) (Nachrowi & Usman, 2002).

RESULTS AND DISCUSSION

To ensure the BEST model of regression, classical OLS assumption consists of heteroscedasticity, multicollinearity, autocorrelation, linearity and normality test has been conducted. Based on the classical model assumption test, it can be concluded that the model in this study is proper to be applied because it has been free from interference in multiple linear regression. The classic assumption test results can ensure that the econometric model used in this study has been BEST however the results of testing classical assumptions are not included in this paper.

Tabel 2. Coefficient of Regression Model

Model	Coefficient		t	Sig.
	B	Standard Error		
(Constant)	16,402	,125	131,374	,000
GDP	,090	,013	6,784	,000
FDI	-,008	,009	-,856	,401
Minimum Wage	,054	,006	8,367	,000

Source: SPSS Result of Data Processing

Based on the Table 2, the model which can be formed follows $\ln Y = 16.402 + 0.090X_1 - 0.008X_2 + 0.054X_3$. On the model, it can be seen that the constant value is 16.402, which means that if all the independent variables have a coefficient of 0 or in other words if there are no variables that affect employment, then employment will grow in a positive direction by 0.09%. The regression coefficient for independent GDP variable, namely X_1 is 0.090. This illustrates that in the regression model obtained, GDP has a positive effect on employment in Indonesia. Then the regression coefficient for independent FDI variables, namely X_2 is -0.008. This illustrates that the regression model obtained, FDI has a negative influence on employment in Indonesia. The independent variable of the Minimum Wage itself has a coefficient value of 0.054. This illustrates that the minimum wage has a positive effect of 0.054% on employment in Indonesia. To see the magnitude of the influence of each independent variable on the dependent variable, t statistical tests were carried out with the following results:

Impact of GDP on Labor Absorption

Based on the regression model obtained, GDP has a positive effect on employment in Indonesia. This result is in accordance with the hypothesis that there is a positive influence between GDP and employment in Indonesia. The regression coefficient of the GDP variable is 0.09 with a significance level of

0,000. That is if it is assumed that the FDI and Minimum Wage variables do not have an influence on employment, then for every increase that occurs in GDP of 1%, employment will increase by 0.09%.

Increased GDP shows an increase in output or production of goods and services. Increasing the output of these goods and services will have an impact on increasing labor demand so that employment opportunities are created. The increase in GDP will increase economic performance resulting in economic growth. Increasing economic performance will have implications for increasing the purchasing power of the people. Growth in purchasing power capability will be accompanied by an increase in demand for goods and services. This will trigger a business field to increase productivity in order to meet the increasing demand for goods and services due to an increase in people's purchasing power. One effort to increase productivity is by increasing the number of workers. This is because the economic sectors in Indonesia are dominated by labor-intensive sectors. With the increase in labor demand, the number of the absorbed workforce will increase so that this condition can reduce the unemployment rate.

The results of this study are in line with Okun's theory which states that there is a relationship between GDP and the unemployment rate. GDP growth will reduce the unemployment rate (Mankiw, 2007). Simanjuntak (1985) also states that employers employ someone because it helps produce goods/services to be sold to consumers. Therefore, the increase in employers' demand for labor depends on the increase in public demand for goods produced. The results of this study are also in line with the research conducted by Sobita (2014) which analyzes economic growth and employment in Lampung, Indonesia. The results showed that GDP had a positive and significant influence on employment in Lampung. Likewise with the research conducted by Alexandi and Marshafeni (2013) examined labor absorption in the agricultural sector and service sector after the minimum wage policy in Banten Province. The results showed that GRDP had a positive and significant influence on employment in Banten, Indonesia.

Effect of Foreign Direct Investment on Labor Absorption

Based on the regression model obtained, the FDI variable has no effect on employment in Indonesia.

Contrary to the hypothesis that investment has a positive and significant effect. This can happen if investments made by developed countries follow the investment techniques they apply in their home countries. Developed countries tend to have capital-intensive production factors. Therefore foreign investment tends to reduce labor because capital intensive techniques accompanied by high technology tend to have better productivity and efficiency so that to produce the same or even greater output quantity, fewer workers are needed. In addition, the use of high technology tends to require workers with higher qualifications. In line with what was stated by Todaro (2000), that there is an asynchronous relationship between investment and employment opportunities because of the accumulation of capital for the purchase of sophisticated machinery and equipment that wastes domestic finance and foreign exchange.

The presence of foreign investors in Indonesia contributes more to increasing capital-intensive industries compared to labor-intensive industries. The aim of the government in reducing unemployment is still difficult to realize if the increase in capital intensive industries is only able to absorb a small number of workers with high education and skills qualifications. Even though the condition of the Indonesian workforce is still dominated by workers with less competitive levels of education and skills (Ningrum, 2008). The results of this study are in line with research conducted by Sandika, et al (2013) which examined the effect of investment on employment in Pelawan, Indonesia. The results of the study indicate that foreign investment has no significant effect on employment in Pelawan, Indonesia.

Effect of Minimum Wage on Labor Absorption

Based on the regression model obtained, the minimum wage variable has a positive and significant effect. The coefficient value in the regression estimation results for the minimum wage variable is 0.054. If it is assumed that the GDP and FDI variables do not have an influence on employment, then at each increase in the Minimum Wage of 1%, employment will increase by 0.054%. This is contrary to the hypothesis which states that minimum wages have a negative effect on employment. The theory of the relationship between minimum wages and labor absorption explains that an increase in wages will cause a decrease in demand for labor by companies so that unemployment occurs. But in some cases, the increase in minimum wages can still increase the demand for labor that maximizes profits.

The positive relationship of minimum wages to employment is in line with Lewis's development model. The Lewis development model explains that the economy consists of two sectors, namely the traditional sector and the industrial sector. The industrial sector has a high level of productivity so that it becomes a shelter for workers who are transferred from the traditional sector. The Lewis development model emphasizes the process of shifting labor, output growth and the growth of employment in the modern sector. With higher wages in the modern sector, companies can recruit more workers (Todaro and Smith, 2006). This is in line with the research conducted by Akmal (2010) which analyzes the factors that affect employment in Indonesia. The results showed that the minimum wage had a positive and significant influence on employment in Indonesia.

CONCLUSION

GDP and Minimum Wages have a positive and significant influence on employment in Indonesia, while the FDI variable does not affect employment. Partially, each of the GDP and Minimum Wages has a similar effect, which is positive and significant for employment. Of the three independent variables, GDP has a considerable influence on employment in Indonesia. GDP is a variable that influences employment in Indonesia, so it is advisable for policy makers to formulate and implement a policy that can increase GDP. One example is to create a good investment climate so that there is a growth in investment flow funds which will then have a positive impact on GDP growth.

Seeing the effect of minimum wage policies has a more positive impact, fiscal policy must be aimed at improving the quality of education and skills in potential human resources in order to increase the number of the workforce, considering that the labor market, especially the formal sector, is targeting qualified workers certain education and skills. So that there is a match of qualifications between job seekers and the job market. In general, policyholders do not need to worry about raising minimum wages to a certain point. The test results on the investment variable are FDI investments that do not affect employment in Indonesia. This can happen because the type of investment made is an investment. In addition, the technology brought has not been accompanied by the same qualifications as potential human resources in Indonesia, so that FDI tends not to affect employment. For this reason, policies should be aimed at increasing skills-based education so that technology brought by investors has the same qualifications as potential human resources in Indonesia.

ACKNOWLEDGEMENT

The paper has been funded by The Indonesian Endowment Fund for Education (Lembaga Pengelola Dana Pendidikan/LPDP). Thanks to LPDP.

REFERENCES

- Badan Pusat Statistik. (1990-2015). *Produk Domestik Bruto Indonesia Menurut Lapangan Usaha*. Jakarta: Badan Pusat Statistik.
- Culliney, M. (2014). Going nowhere? rural youth labour market opportunities and obstacles.
- Daly, M. (2011). What adult worker model?: A critical look at recent social policy reform in europe from a gender and family perspective. *Social Politics: International Studies in Gender, State and Society*, 18(1), 1-23.
- Del Carpio, X., Nguyen, H., Pabon, L., & Wang, L. C. (2015). Do minimum wages affect employment? Evidence from the manufacturing sector in Indonesia. *IZA Journal of Labor & Development*, 4(1).
- Deng, Q. (2018). *The Impact of Minimum Wage Increases on Employment in the US Between 1994 and 2016* (Doctoral dissertation, Georgetown University).
- Departemen Ketenagakerjaan dan Transmigrasi. 2007. *Profil Sumberdaya Manusia Indonesia*. Jakarta: DEPNAKERTRANS.
- Dhanani, S. (2004), *Unemployment and underemployment in Indonesia, 1976-2000: paradoxes and issues*, working paper, ILO, Jakarta.
- Dickens, R., Machin, S., & Manning, A. (1999). The effects of minimum wages on employment: Theory and evidence from Britain. *Journal of Labor Economics*, 17(1), 1-22.
- Dobkin, C., & Ferreira, F. (2010). Do school entry laws affect educational attainment and labor market outcomes?. *Economics of education review*, 29(1), 40-54.
- Eaton, A. E., Schurman, S. J., & Chen, M. *Informal Workers and Collective Action: A Global Perspective*. New York: Cornell University Press.
- Fridhowati, Nila. 2011. *Faktor-Faktor yang Mempengaruhi Penyerapan Tenaga Kerja Sektor Industri di Pulau Jawa*. Bogor: IPB.
- Mankiw, N. Gregory. (2007). *Makroekonomi*. Jakarta: Erlangga
- Mankiw, N. Gregory. (2006). *Teori Makroekonomi*. Jakarta: Erlangga.
- Marimpi, M., & Koning, P. (2018). Youth minimum wages and youth employment. *IZA Journal of Labor Policy*, 7(1), 1-18. doi:10.1186/s40173-018-0098-4
- Meer, J., & West, J. (2016). Effects of the minimum wage on employment dynamics. *Journal of Human Resources*, 51(2), 500-522. doi:10.3368/jhr.51.2.0414-6298R1
- Millán, J. M., Hessels, J., Thurik, R., & Aguado, R. (2013). Determinants of job satisfaction: A european comparison of self-employed and paid employees. *Small Business Economics*, 40(3), 651-670. doi:10.1007/s11187-011-9380-1
- Monitoring, S., & Unit, E. R. (2001). Wage and Employment Effects of Minimum Wage Policy in the Indonesian Urban Labour Market.
- Ndhlovu, D. (2010). *The socio-economic characteristics and Implications of youth unemployment in Galeshewe Township in the Kimberley area (Northern Cape Province)*. Doctoral dissertation, University of the Western Cape.
- Neumark, D., & Wascher, W. L. (2007). Minimum wages and employment. *Foundations and Trends® in Microeconomics*, 3(1-2), 1-182.
- Ni, J., Wang, G., & Yao, X. (2011). Impact of minimum wages on employment: Evidence from china. *The Chinese Economy*, 44(1), 18-38. doi:10.2753/CES10971475440102
- Pecora, P. J., Kessler, R. C., O'Brien, K., White, C. R., Williams, J., Hiripi, E., & Herrick, Peri, G., Shih, K., & Sparber, C. (2015). STEM workers, H-1B visas, and productivity in US cities. *Journal of Labor Economics*, 33(S1), S225-S255. doi:10.1086/679061
- Pratomo, D. S. (2016). How does the minimum wage affect employment statuses of youths?: Evidence of indonesia. *Journal of Economic Studies*, 43(2), 259-274. doi:10.1108/JES-07-2014-0131
- Rothenberg, A. D., Gaduh, A., Burger, N. E., Chazali, C., Tjandraningsih, I., Radikun, R., SABIA, J. J., BURKHAUSER, R. V., & HANSEN, B. (2012). are the effects of minimum wage increases always

- small? new evidence from a case study of new york state. *Industrial and Labor Relations Review*, 65(2), 350-376. doi:10.1177/001979391206500207
- Salvatore, D. (1997). *Ekonomi Internasional*. Jakarta: Erlangga.
- Saxena, M. (2017). Workers in poverty: An insight into informal workers around the world. *Industrial and Organizational Psychology*, 10(3), 376-379. doi:10.1017/iop.2017.29
- Schieman, S., & Young, M. (2015;2014;). Who engages in Work-Family multitasking? A study of canadian and american workers. *Social Indicators Research*, 120(3), 741-767. doi:10.1007/s11205-014-0609-7
- Shannon, M. (2011). The employment effects of lower minimum wage rates for young workers: Canadian evidence. *Industrial Relations: A Journal of Economy and Society*, 50(4), 629-655.
- Silliker, A. (2011,). Minimum wage increase lowers employment: CFIB. *Canadian HR Reporter Society*, 50(4), 629-655. doi:10.1111/j.1468- 232X.2011.00655.x
- Simanjuntak, P. J. (1985). *Pengantar Ekonomi Sumber Daya Manusia*. Jakarta: LPFE UI.
- Simanjuntak, P.J.(1998). *Masalah Ketenagakerjaan di Indonesia*. Jakarta: Departemen Tenaga Kerja RI.
- Sobita, dkk. (2014). *Pertumbuhan Ekonomi dan Penyerapan Tenaga Kerja di Provinsi Lampung*. Lampung: Fakultas Ekonomi dan Bisnis Universitas Lampung.