Original Article

Factors Affecting Employment in Jakarta Indonesia After Transition from Education to the World of Work

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Abstract:
This study aims to analyze the effect of the number of labor force, gross regional domestic product, capital expenditure, and foreign investment on employment in DKI Jakarta Province. The method used in this study is the Error Correction Model (ECM). The data used in this study is time series data for the period 1990-2021. The results showed that in the long and short term the number of labor force, gross regional domestic product, and capital expenditure had a positive and significant effect on employment in DKI Jakarta Province. Meanwhile, foreign investment (FDI) has no influence on the absorption of labor in DKI Jakarta Province. The DKI Jakarta government must be selective and re-evaluate the existence of foreign investors because the results of this study show that foreign investment does not contribute to employment. This will hinder the alleviation of the problem of poverty, due to the insurmountable problem of unemployment in DKI Jakarta. The DKI Jakarta government must pay serious attention to the current dynamics of industrial supply and demand, so handling transitions from school to work requires innovation and collaboration that creates selected programs that are able to adapt quickly to changes in the world of work.

Keywords: Employment, foreign investment, labor force, Error Correction Model

Introduction
In the process of implementing economic development, economic growth becomes an important factor because the absorption of labor will have an impact on improving people’s welfare. Increasing production is a way that can be done to increase economic growth. Based on the production theory proposed by Cobb Douglas (Onalan & Basegmez, 2018), overall production comes from the presence of capital, technology, and increased labor inputs. The availability of many jobs affects the increase in people’s purchasing power and increased income growth that can improve people’s welfare (Todaro et al., 2020).
A fast-growing economy does not guarantee that the welfare of its people will be fulfilled, unless it is followed by increased employment opportunities to accommodate new workers. The big problem in the field of employment that often occurs is the slow economic growth accompanied by the increasing number of labor force population that continues to grow. Population has an important role in encouraging increased economic development in a region. The rapid increase in population can result in an uncontrollable population explosion. Population growth can be influenced by many factors, ranging from high birth rates to increasing numbers of migration. The expansion of employment must be further increased in order to keep pace with the rapid growth of the population at a young age entering the labor market. The imbalance between the labor force and the number of jobs can lead to an increase in the number of unemployed.

Figure 1 shows the percentage of the open unemployment rate of the labor force in DKI Jakarta from 2017 to 2021. Based on the graph, it can be seen that the open unemployment rate tends to fluctuate every year. However, unemployment has increased again starting in 2020. Bank Indonesia reported that the increase in unemployment was caused by an increase in the number of labor force accompanied by reduced employment in several industries due to COVID-19. This shows that labor force growth can also affect unemployment in DKI Jakarta. According to data obtained from the Central Statistics Agency (2022), DKI Jakarta in general is one of the provinces with the highest GDP contributor in 2021, which is IDR 1,856,301.00 million. Only the primary sector contributes a small part of the country's GDP, but the tertiary and secondary sectors contribute more than 20 to 70 percent of the country's GDP. This shows that especially in the primary sector is not the mainstay of DKI Jakarta's economic activities.

![Open Unemployment Rate in DKI Jakarta Province](image)

Source: Statistical Center Body, 2022

DKI Jakarta is the highest contributor in Indonesia but in reality still has problems with employment. There are still many people who do not have access to work, even though the government has guaranteed every citizen to get a job and get a decent life. According to Keynes, the solution to job creation is an effective increase in demand. By stimulating demand through increased consumption will have an impact on increasing production. Increased production will have an impact on increasing labor. Large fiscal capacity can encourage effective demand for the government. Increased capital expenditure, especially for general employment, has several benefits. First, the government can employ people who can directly reduce the unemployment rate. Second,
public works can provide an appropriate multiplier effect based on marginal propensity for consumption.

Keynes argued that the concept of multiplier applies not only to government capital expenditure but also to private investment. The investment intended in this case is not a financial investment in the form of a portfolio, but direct investment or investment in productive sectors that can produce goods and services (Mankiw, 2010). Such direct investment can open up new business enterprises and thus will increase employment opportunities. Increasing income of newly employed workers can encourage new demand for consumer goods which will eventually increase production capacity and employment opportunities in other sectors (Jhingan, 2011).

Based on the description described above, there are macroeconomic factors that can affect the absorption of labor in DKI Jakarta, including the number of labor force, Gross Regional Domestic Product (GRDP), capital expenditure, and foreign investment. Therefore, this study was conducted to examine the influence of these macroeconomic factors on employment in DKI Jakarta in 1990-2021. Previous research conducted by Wiisih and Karmini (2021) stated that the number of the workforce has a positive and significant influence on labor absorption. This can happen because the increasing number of labor force, the more labor force will also increase. Research conducted by Aljebrin (2012) states that in the case of world market trade, world imports (exports) of ASEAN countries have a positive (negative) impact on employment depending on the type of trade. Research also conducted by Sall & Burlea (2021) proves that investments in priority market sectors as a whole result in good economic growth. Increasing economic growth has an impact on increasing demand for labor. Another study conducted by Curtis, et al. (2021) shows that tax policies that incentivize capital investment affect workers’ demands. This research is supported by Zhao & Fang’s (2022), research finding that development acceleration policies significantly increase firms’ relative demand for skilled labor. Meanwhile, research conducted by Guennouni & Seffih (2020) states that public investment in Algeria has a negative influence on labor demand.

Research related between GDP and labor demand was conducted by Al Abri, et al. (2023). The results of his research concluded a positive relationship between non-hydrocarbon GDP and total foreign employment. In particular, the relationship between non-hydrocarbon GDP and unskilled foreign labor is significant and suggests a two-way relationship. Research conducted by Strobel, et al. (2020) shows that uncertainty and macroeconomic shocks, impact uncertainty on the housing market, and dominate shocks in local labor demand. Research conducted by Murniati, et al. (2023) shows that increased economic growth will have an impact on higher labor force participation rates Research related between capital expenditure and labor demand was conducted by Kluve (2010). Kluve stated that contextual factors such as labor market institutions or business cycles, especially the type of program that determines the effectiveness of the program are quite positive driving labor demand. Research conducted by Nekarda et al. (2011) shows that increased government demand increases output and working hours, decreases real product wages and labor productivity. Another study conducted by Dutt (2013) increased government spending reduces unemployment. However, the decrease in unemployment is due to an increase in government employment, not private employment.

Based on the results of the study above, the factors that can determine labor demand are gross domestic product, foreign investment, government spending and the number of workers. With the ECM model, the determinants of labor can be analyzed and predicted in the short and long term.
Methods

The Error Correction Model (ECM) method is used as an econometric tool for calculations and descriptive analysis methods have the aim of identifying short-term and long-term relationships that occur due to cointegration between research variables (Gujarati, 2021). Before estimating the Error Correction Model (ECM) and descriptive analysis, it is necessary to carry out stages including stationary data tests, determining lag lengths, and testing the degree of cointegration. After estimating data using the Error Correction Model (ECM), analysis can be carried out using the IRF and Variance Decomposition methods. The steps to formulate an Error Correction Model (ECM) are as follows:

The specification of the expected relationship on the model under study.

\[ EMP_t = \alpha_0 + \alpha_1 TLF_t + \alpha_2 GRDP_t + \alpha_3 CE_t + \alpha_4 FDI_t \]  

Where:

- \( EMP_t \) = Employment in period \( t \)
- \( TLF_t \) = Total Labor Force in period \( t \)
- \( GRDP \) = Gross Regional Domestic Product in period \( t \)
- \( CE_t \) = Capital Expenditure in period \( t \)
- \( FDI_t \) = Foreign Direct Investment in period \( t \)
- \( \alpha_1, \alpha_2, \alpha_3, \alpha_4 \) = Coefficient in the short run

Single cost function on error correction method.

\[ Ct = b_1 (EMP_t - EMP_t^*) - b_2 ((EMP_t - EMP_{t-1}) - ft (Z_t - Z_{t-1}))^2 \]  

Based on the equation above \( Ct \) is a quadratic cost function, \( EM_t \) is the absorption of labor in period \( t \), while \( Z_t \) is a vector that affects labor absorption and is linearly influenced by the total labor force of Gross Regional Domestic Product (GDP), capital expenditure, and Foreign Direct Investment (FDI). Furthermore, \( b_1 \) and \( b_2 \) are vectors that give weight to \( Z_t - Z_{t-1} \). The first component of the delinquent cost function above is the imbalance cost and the second component is the adjustment cost component. Meanwhile, \( b \) represents time lag. \( Z_t \) is a factor of variables that affect labor absorption. The minimum of the cost function of the equation with respect to \( R_t \) is obtained:

\[ EMP_t = \delta EMP_t + (1 - e) EMP_{t-1} - (1 - e) ft (1 - b) Z_t \]  

\[ LnEMP_t = \beta_0 + \beta_1 LnTLF_t + \beta_2 LnGRDP_t + \beta_3 LnCE_t + \beta_4 LnFDI_t \]  

While the relationship in the short term is explained by the equation below, as follows:

\[ DLnEMP = \alpha_1 DLnTLF_t + \alpha_2 DLnGRDP_t + \alpha_3 DLnCE_t + \alpha_4 DLnFDI_t \]  

\[ DLnEMP_t = \alpha_1 DLnTLF_t + \alpha_2 DLnGRDP_t + \alpha_3 DLnCE_t + \alpha_4 DLnFDI_t - (LnEM_{t-1} - \beta_0 - \beta_1 LnTLF_{t-1} + \beta_2 LGRDPT_{t-1} + \beta_3 LnCE_{t-1} + \beta_4 LnFDI_{t-1}) + \mu_t \]  

Based on the parameterization results of the short-term equation, it can produce a
new equation. The equation is a development of the previous equation for calculating parameters in the long run through econometric regression methods using the Error Correction Model (ECM):

\[
DLnEMP_t = \beta_0 + \beta_1 DLnTLF_t + \beta_2 DLnGRDP_t + \beta_3 DLnCET + \beta_4 DLnFDI_t + ECT + \mu_t \quad \ldots \quad (7)
\]

\[
ECT = LnEMP_t - 1 + LnGRDP_t - 1 + DLnCET - 1 + DLnFDI_t - 1 \quad \ldots \ldots \quad (8)
\]

Stages in conducting ECM models (Basuki and Prawoto, 2017); (1) stationary test; (2) Cointegration Test; and (3) Short-term regression (ECM).

The concept used to test stationary time series data is the unit root test. If a time series data is not stationary, it can be said that the data has a unit root problem. The existence of problems in the root problem unit can be seen by comparing the t-statistics in the regression results with the Augmented Dickey-Fuller test scores. The form of the equation model is as follows:

\[
\Delta EMP_t = a_1 + a_2 T + \Delta EMP_{t-1} + \alpha_i \sum \Delta EMP_{t-1} + t \quad \ldots \quad (9)
\]

Where:
\[
\Delta EMP_{t-1} = (\Delta EMP_t - 1 - \Delta EMP_{t-2}) \text{ and so on.}
\]
\[
m = \text{length of time lag based on } I = 1.2 \ldots m.
\]

The null hypothesis remains \( \delta = 0 \) or \( \rho = 1 \).

The value of the ADF t-statistic is the same as the value of the DF t-statistic.

If the time series data observed in the root test unit above is not stationary, then the next step is to test the degree of integration to see at what degree the data will be stationary. The integration degree test is carried out with the following model:

\[
\Delta EMP_t = \beta_1 + \delta \Delta EMP_{t-1} + \alpha_i \sum \Delta EMP_{t-1} + et \quad \ldots \ldots \quad (10)
\]

\[
\Delta EMP_t = \beta_1 + \beta_2 T + \delta \Delta EMP_{t-1} + \alpha_i \sum \Delta EMP_{t-1} + et \quad \ldots \ldots \quad (11)
\]

The t-statistic values of regression results from positions 10 and 11 above are compared with the t-statistic values in the DF table. If the \( \delta \) value of the two equations above is equal to one, then the variable \( \Delta EMP_t \) can be said to be stationary at degree one or denoted by \( \Delta EMP_t \sim I(1) \). However, if the value of \( \delta \) does not differ from zero, then the variable \( \Delta EMP \) can be said to be not yet stationary degree of first integration.

The most used cointegration tests are the Engel Granger (EG) test, the Augmented Engle Granger (AEG) test, and the Durbin Watson Cointegrating Regression (CRDW) test. The data used to obtain the calculated EG, AEG, and CRDW values must have been integrated to the same degree. OLS testing on an equation is as follows:

\[
EMP_t = a_0 + a_1 \Delta TLF_t + a_2 GRDP_t + a_3 CET + a_4 FDI_t + et \quad \ldots \ldots \quad (12)
\]

From equation 12 above, error terms (save the residual). The next step is to estimate the model in the autoregressive equation from the error terms based on the following equation:
Δέ _t= λέ t-1 ................................................................. (13)
Δέ t = λέ t-1 + αi∑Δλέ t-1 ................................................................. (14)

If it has passed the cointegration test, the next step is to be tested using a dynamic linear model to see the possibility of structural changes, because the long-term equilibrium relationship between the independent variable and the dependent variable resulting from the cointegration test does not always apply. In simple terms, the ECM process against the labor absorption equation (5) has been converted into the following:

ΔEMPt = a0 + a1ΔTLFt + a2ΔGRDPt + a3ΔCEt + a4ΔFDIt + ECTt-1 + et ..... (13)

Results

The term used when determining the time series data stationarity test is the unit root test. If the time series data is not stationary, then the data can be said to have a unit root problem. The existence of unit root problems can be seen by comparing the t-statistical value of the results of regression with the value of the Augmented Dickey Fuller test with the following results:

Table 1 HCL Uzi Size Unit

<table>
<thead>
<tr>
<th>Variable</th>
<th>Uzi Unit Size</th>
<th>Level</th>
<th>1st Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ADF</td>
<td>Probabilit</td>
<td>ADF</td>
</tr>
<tr>
<td>EMP</td>
<td>-0.730551</td>
<td>0.8243</td>
<td>-5.621031</td>
</tr>
<tr>
<td>TLF</td>
<td>-1.359659</td>
<td>0.5888</td>
<td>-6.243571</td>
</tr>
<tr>
<td>GRDP</td>
<td>2.082085</td>
<td>0.9998</td>
<td>-4.639640</td>
</tr>
<tr>
<td>CE</td>
<td>2.014343</td>
<td>0.9905</td>
<td>-4.800550</td>
</tr>
<tr>
<td>FDI</td>
<td>-0.867038</td>
<td>0.7851</td>
<td>-5.438874</td>
</tr>
</tbody>
</table>

Source: Processed Eviews 12 (2023)

Table 1 above shows that in the level test stage there are no variables that pass because the probability values in all variables are still above 0.05. Therefore, the next test is needed, namely the root test of the 1st difference unit. At the level of 1st difference, the entire variable probability value is below 0.05 which means it is stationary. The result of the long-term equation is as follows:

Table 2 Long Term Regression

<table>
<thead>
<tr>
<th>Variabel</th>
<th>Coefficient</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOG_EMP</td>
<td>0.186090</td>
<td>0.0049</td>
</tr>
<tr>
<td>LOG_GRDP</td>
<td>0.063783</td>
<td>0.0399</td>
</tr>
<tr>
<td>LOG_CE</td>
<td>0.088613</td>
<td>0.0051</td>
</tr>
<tr>
<td>LOG_FDI</td>
<td>0.017922</td>
<td>0.1286</td>
</tr>
<tr>
<td>C</td>
<td>9.425614</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

R-squared 0.953921
Adj. R-squared 0.947098
F-stat 139.7484
Prob(F-stat) 0.000000

Source: processed Eviews 12 (2023)

Table 2 above shows the results of long-term regression between independent
variables, namely the number of labor force, gross regional domestic income (GDP), capital expenditure, and foreign investment (FDI) against the dependent variable, namely labor absorption (EMP), with the equation as follows:

\[ \Delta \ln EMP_t = 9.425614 + 0.186090 \times \log (TLF) + 0.063783 \times \log (GRDP + 0.088613 \times \log (CE) + 0.017922 \times \log (FDI) + \text{and} \]

The value of the Adjusted R-squared coefficient is 0.953921 which means that the dependent variable is influenced by independent variables (number of labor force, GDP, capital expenditure, FDI) with a value of 95.39%, while the remaining 4.61% is explained by other variables outside of the variables studied.

The cointegration test is used to show an early indication that the model used has a short-term relationship (cointegration relation). The results of the cointegration test are obtained by forming residuals obtained through regression of independent variables to dependent variables using OLS. The residuals obtained must be stationary at the level level to be called cointegrated. Furthermore, to test the residuals obtained, a DF test was carried out, then obtained that had been stationary was shown with a significant t-statistic value or less than 0.05.

Table 3 Results of the Cointegration Test

<table>
<thead>
<tr>
<th>Variabel</th>
<th>Prob.</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECT</td>
<td>0.000</td>
<td>There is cointegration</td>
</tr>
</tbody>
</table>

Source: Processed E-views 12 (2023)

Table 3 above shows that the probability value of ECT is 0.0000 or less than 0.05 which means that ECT is at stationary level level and shows that the variables of labor force size, gross regional domestic product (GDP), capital expenditure, and foreign investment (FDI) are cointegrated, so that testing can be continued to the next step, namely the short-term equation stage.

The ECM model or Error Correction Model is needed to be able to determine the short-term relationship between variables in this study. The ECM model obtains error correction factor results and will correct deviations to achieve equilibrium. A good and valid ECM model must have a significant ECT to be able to measure regression responses that deviate from equilibrium. Here is the result of the equation in the short term:

Table 4 Short Term Regression

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>D(LOG_EMP)</td>
<td>0.128744</td>
<td>0.0053***</td>
</tr>
<tr>
<td>D(LOG_GRDP)</td>
<td>0.217246</td>
<td>0.0466**</td>
</tr>
<tr>
<td>D(LOG_CE)</td>
<td>0.042408</td>
<td>0.0089***</td>
</tr>
<tr>
<td>D(LOG_FDI)</td>
<td>0.001438</td>
<td>0.8789</td>
</tr>
<tr>
<td>ECT(-1)</td>
<td>-0.368675</td>
<td>0.0312**</td>
</tr>
<tr>
<td>C</td>
<td>-0.007991</td>
<td>0.4715</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.654885</td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.645862</td>
<td></td>
</tr>
<tr>
<td>F-statistic</td>
<td>4.172374</td>
<td></td>
</tr>
<tr>
<td>Prob(F-statistic)</td>
<td>0.006806***</td>
<td></td>
</tr>
<tr>
<td>Prob (Jarque -Bera)</td>
<td>0.449659</td>
<td></td>
</tr>
<tr>
<td>Uji Heteroskedastisitas</td>
<td>Obs*R-squared</td>
<td>13.14721</td>
</tr>
<tr>
<td>Uji Autokorelasi</td>
<td>Obs*R-squared</td>
<td>0.164175</td>
</tr>
</tbody>
</table>
From Table 4 above shows the results of the regression of relations in the short term, namely the independent variables of the number of labor force, gross regional domestic product (GDP), capital expenditure, foreign investment (FDI) with the dependent variable namely labor absorption (PTK).

The results of Table 4 show the value of Prob (F-statistic) of 0.006806 or less than 0.05 and the value of ECT (-1) shows that the speed of adjustment shows a negative and significant value of 0.0312 or less than 0.05 which means that the ECM model is valid and has a significant effect in the short term. The value of Adjusted R-squared is 0.645862 which means that the independent variables are the number of labor force, GDP, capital expenditure, and FDI of 64.58%. Meanwhile, the remaining 35.42% was explained by other variables outside the variables studied.

Table 4 shows the probability value of the total labor force of 0.0053, GDP of 0.0466, capital expenditure of 0.0089, which means that these three variables have a short-term influence on the variable of labor absorption. Meanwhile, the probability value of foreign investment is 0.8789 which means that in the short term it has no significant effect. The value of the ECT coefficient of -0.368675 indicates that there is a difference between labor absorption and the equilibrium value of -0.368675 will be adjusted in a one-year period.

From the results of statistical tests conducted, the regression that has been done is good enough to be able to explain the variables affecting labor absorption. Based on statistical tests and econometrics that have been carried out by researchers, all variables have a significant effect and have an influence in the short or long term.

Employment in DKI Jakarta is obtained that the long-term coefficient value of the number of labor force is 0.186090 with a probability value of 0.0049, so that in the long run that an increase in the number of labor force by 1% will increase labor absorption by 0.18%. Meanwhile, in the short term, it is known that the coefficient value of the number of labor force is 0.128744 with a probability value of 0.0053, so in the short term it means that an increase in the number of labor force by 1% will be able to increase labor absorption by 0.12%. From the results of the coefficient value in the long and short term which shows a positive value, and the probability value is less than 0.05, it means that it can be concluded that the number of labor force has a positive and significant effect on labor absorption, so the hypothesis proposed is that the number of labor force has a significant effect on labor absorption is accepted. This shows that changes in the number of labor force that occur have a real effect on labor absorption in DKI Jakarta. This happens because the labor force is the main source of objects in labor absorption, so that the greater the number of labor increases will affect the number of labor absorption. The results of this study are in line with the theory put forward by Lewis which explains that the labor force has a significant effect on labor absorption. Surplus labor is an opportunity, not an obstacle because excessive labor in one sector will provide jobs to another sector (Mulyadi, 2008).

This finding is also reinforced by the results of Wiasih and Karmini’s (2021) research which revealed that the labor force has a positive influence on labor absorption. Therefore, the higher the number of labor force, of course, the more labor with the availability of employment. Because in productive age can help produce the production of goods or services.
Based on the results of regression analysis of the effect of gross regional domestic product (GRDP) on labor absorption in DKI Jakarta, it was found that the long-term coefficient value of GDP is 0.186090 with a probability value of 0.0001 so that in the long run an increase of 1% of GDP will be able to increase employment by 0.18%. On the other hand, in the short term the value of the GDP coefficient is 0.217246 with a probability value of 0.0466 which means that every 1% increase in GDP can increase 0.21% employment. This result shows that in the long or short term if there is an increase in GDP, then the absorption of labor will increase in DKI Jakarta and have a real effect on the absorption of labor in DKI Jakarta and vice versa. This is in accordance with the hypothesis proposed, namely that the gross regional domestic product (GRDP) has a positive and significant effect on the absorption of labor in DKI Jakarta.

According to the results of the analysis above in accordance with the theory according to Slow-Shum, economic growth depends on the availability of production factors such as labor, population growth, and employment which is reflected in the level of GDP. The theory assumes of classical economics, namely that the economy is at the level of full employment of the full use of the factors of production. In other words, it will then continue to grow, and it all depends on population growth, optimal labor force and employment. The influence of gross regional domestic product (GRDP) on employment in DKI Jakarta Province is thought to be due to DKI Jakarta Province, which is the capital of Indonesia, being one of the centers of growth that also plays a role in the national economic system. In this economic space setting, DKI Jakarta could perform economic functions selectively and competitively.

This is in line with research conducted by Rahmadani (2022) whose results show that GRDP has a significant effect on employment. The higher or lower the GDP will significantly affect the high and low absorption of labor.

Based on the results of regression that has been carried out shows that the value of the capital expenditure coefficient in the long run is 0.088613 with a probability value of 0.0051, then in the long run an increase of 1% capital expenditure will increase employment by 0.08%. Meanwhile, the value of the capital expenditure coefficient in the short term is 0.42408 with a probability value of 0.0089 so that in the short term every increase in capital expenditure by 1% will reduce 0.42% of employment. This shows that changes in capital expenditure have had a significant effect on employment in DKI Jakarta.

The results of this study are in accordance with Keynes’s theory (Skousen, 2016) according to which active fiscal policy can solve economic problems, especially related to labor. In fact, the theory supports government deficit spending because government spending can improve the state of the economy to reach full employment. Regardless of whether the expenditure is productive or not, he thinks it will still create jobs by increasing aggregate demand and the multiplier effect. According to Cambridge, active fiscal policy will be more effective than monetary policy to overcome economic problems.

Capital expenditure can be said to be government expenditure / financing used for development, holding, or buying assets. Because capital expenditure is the formation of fixed assets, the positive effect will also last a long time. In addition to creating jobs, capital expenditure can also increase public revenue which further drives an increase in aggregate demand. The increase in aggregate demand will encourage producers to increase production capacity and encourage investment that can create
jobs.

Therefore, it is important to increase government capital expenditure efficiently on productive items to be able to create as many jobs as possible. Due to the high unemployment rate in DKI Jakarta, it is necessary for local government intervention to make policies and expenditures that can improve the quality of labor, create jobs, and improve community welfare.

Based on the regression results, the long-term coefficient of foreign investment (FDI) is 0.017922 with a probability value of 0.1286, then an increase in FDI by 1% will increase employment by 0.01%. On the other hand, in the short length the value of the FDI coefficient shows 0.001438 with a probability value of 0.8789 so that an increase in FDI by 1% will increase employment by 0.001%. Thus, because the probability value shows more than 0.05, it means that foreign investment (FDI) in the long and short term does not have a significant effect on employment. It's just that the influence is not significant, in the broad sense that the positive influence of FDI variables on labor absorption cannot be generalized to every phenomenon because it has a small effect on the workforce absorbed in economic activity in DKI Jakarta.

The causative factor is thought to be because the ICOR (incremental capital output ratio) in Indonesia is low, it means that every increase in the value of investment with a certain nominal value will increase output with a small nominal value, or in other words it takes a lot of investors in investment to be able to increase output at a certain nominal. The trend of foreign investment in DKI Jakarta shows a nominally higher than capital expenditure. However, foreign investment is not as significant as capital expenditure in affecting employment. This shows that there are still many foreign investments that use capital intensively.

This research is in line with the theory proposed by Baran (1962) foreign investment entering a country tends to be capital intensive rather than labor intensive, therefore it does not have a significant effect on job creation. The high cost when using more labor inputs is the main reason why foreign companies prefer to build capital-intensive rather than labor-intensive enterprises. Aprilia (2021) found in his research that FDI does not have a significant effect on labor absorption in West Java Province. At the same time, PMDN has a significant effect on employment. This can happen because the addition of foreign investment is more used by large companies to buy machinery or modern technology to increase their production capacity. So that the increase in output is not accompanied by an increase in employment opportunities.

In addition, various violations often occur in foreign investment, such as the occurrence of KKN practices (collusion, corruption, and nepotism) by officials related to licensing and others, violations related to foreign workers and so on. In 2018, the Ombudsman found that many illegal foreign workers from China and more than 200 drivers from China were unskilled workers. In the Foreign Investment Law, foreign workers who can be employed are experts not uneducated workers (Ombudsman, 2018). Not only that, but the profits also obtained by foreign companies are brought back to the investor's home country so that it affects the country's foreign exchange reserves. The multiplier effect that should occur in foreign investment becomes insignificant because the benefits (capital) obtained by foreign investors are often brought to their home countries.

**Conclusion**

The variable number of labor force in the long and short term has a positive and
significant effect on labor absorption in DKI Jakarta Province. This can happen because the increase in the number of labor force will also increase labor absorption in DKI Jakarta Province, and the consequences for economic development should always provide employment for the new labor force so that there is equity, or conditions become balanced/comparable between the labor force and labor absorption.

The variable gross regional domestic product (GRDP) in the long and short term has a positive and significant effect on employment in DKI Jakarta Province. This can happen because the higher the GDP, it will affect the absorption of labor. So, there is a similarity with the Slow-Swam theory, because when GDP increases it will have an influence on increased economic growth which will then absorb more labor.

Capital expenditure variables in the long and short term have a positive and significant effect on labor absorption in DKI Jakarta Province. The results showed that increasing capital expenditure can create jobs so that more workers will also be absorbed in economic activities in DKI Jakarta Province.

Foreign direct investment (FDI) variables in the long and short term have a positive and insignificant effect on employment in DKI Jakarta Province. It is that incoming foreign investment is more likely to use capital-intensive technology compared to labor-intensive technology.

**Suggestion**

Based on the conclusions above, the following are suggestions that can be taken into consideration, namely as follows: The DKI Jakarta Provincial Government is expected to increase job opportunities along with the increasing number of the workforce. In addition, the government is also expected to increase the growth rate of GDP, increase the ratio of capital expenditure to operating costs in the next year’s draft budget, and must be selective and support the realization of foreign investment in developing businesses with a labor-intensive model so that later it can maximize better employment. For further researchers with this study, it is hoped that further research is needed to perfect this research by increasing the number of data samples and multiplying variables so that the results are better and more accurate.

**References**


