



## The Impact of the Job Creation Law and Other Variables on Indonesia's FDI from 2018 to 2024

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**Abstract.** Although national Foreign Direct Investment (FDI) realization in Indonesia increased following the enactment of the Job Creation Law in 2021, regional FDI realization actually showed a decline in 17 of Indonesia's 34 provinces. Reviews from international organizations such as the World Bank and the World Trade Organization (WTO) suggest the need for analysis to examine the influence of investment-supporting variables on FDI in Indonesia, including the Job Creation Law policy. Therefore, the objective of this study is to analyze the variables influencing regional FDI realization in 34 provinces for the 2018-2024 period. The method used is panel data regression with the selected Random Effect Model (REM). The results show that the Household Consumption Expenditure (HCE) as a proxy for market size, non-oil and gas exports as a proxy for openness of market access, the mining sector's GRDP as a proxy for natural resource potential, and the Job Creation Law have a positive effect on regional FDI realization. These results align with eclectic dunning theory. Disparities in FDI realization were also found, regions outside Java Island that experienced high FDI realization were partly due to internal factors such as abundant natural resources, the presence of industrial areas, and product diversification.

**Keyword:** Eclectic Theory, FDI, Job Creation Law, Panel Data Regression.

### 1. Introduction

Foreign Direct Investment (FDI) in Indonesia plays a crucial role in driving Indonesia's economic development. In its 2020-2024 Indonesia National Medium-Term Development Plan (RPJMN) targets that approximately 55% of investment in Indonesia will come from foreign companies [1]. FDI is not merely a capital injection but also brings positive impacts in the form of technology transfer, job creation, and economic growth [2]. For Indonesia, with its region-based economy, each province has its own distinct potential and challenges, understanding the variables influencing FDI is crucial to ensuring equitable and sustainable economic development.

However, data from BPS shows that FDI realization has declined for three consecutive years, from 2018 to 2020 (figure 1). According to the Investment Coordinating Board (BKPM), this decline was caused by tightening global monetary policy and the complexity of domestic regulations. Several previous studies have stated that Indonesia experiences hyperregulation, which has triggered a decline in foreign investor interest [3], [4]. For example, investors complain about export policies due to lengthy and inefficient licensing processes. However, according to research by Rho, high export value and public purchasing power can indicate potential economic growth that can attract foreign investment [5].



**Figure 1.** Realization of national Foreign Direct Investment (FDI) 2018-2024 (million US\$)

In response to this situation, the government issued a policy that sparked controversy due to its perceived short-sightedness. This policy involved regulatory reforms implemented by the government through the Job Creation Law. This law was designed to streamline complex regulations, including those related to investment. The Job Creation Law (Law No. 11 of 2020) regulates Foreign Direct Investment (FDI) through improving the investment ecosystem, simplifying licensing, and providing incentives. One example is the ease of foreign capital in new investment or business expansion. This law replaced the Employment Law, which had been in place since 2003. Following the enactment of the Job Creation Law in 2021, total foreign investment inflows into the country increased, as seen in figure 1. However, There are still 17 provinces that have an average FDI lower than the national average FDI during the 2018-2024 period (Figure 2). This indicates that the policy's effectiveness varies across regions and does not guarantee a uniform increase in investment.



**Figure 2.** Average regional FDI in 34 provinces in Indonesia from 2018-2024

Several previous studies, such as those by Fazaaloh (2024) [6] and Cahyaningrum (2024) [7] suggest the need for research on FDI at the regional level to further analyze investment equity. Furthermore, the *World Bank* and several international institutions, such as the *Organization for Economic Co-operation and Development* (OECD) and the *World Trade Organization* (WTO), also suggest the need for economic sector analysis to examine the impact of the Job Creation Law on investment in Indonesia [8], [9], [10]. In relation to this, we have not found any studies that examine the impact of the Job Creation Law on FDI in Indonesia using quantitative methods. Based on this urgency, this study aims to analyze the impact of the Job Creation Law and the variables suspected to influence regional FDI in Indonesia for the 2018–2024 period.

This study analyzes the variables that allegedly affect the realization of FDI based on Dunning's theory. The theory of location advantage presented by Dunning (1980) states that low wages, abundant resources, safe political stability, large market size, and open market access are important factors that investors take into account. In this study, the variables of human resources, natural resources, labor wages, openness to market access, market size, and regulatory stability are sequentially represented by the Human Development Index (HDI), Gross Regional Domestic Product (GRDP) in the agricultural



and mining sectors, Provincial Minimum Wage (UMP), Non-oil and gas exports, Household Consumption Expenditure (HCE), and the Job Creation Law.

## 2. Research Method

### 2.1. Theoretical Foundation

#### 2.1.1. Eclectic Paradigm theory

Eclectic Paradigm theory proposed by Dunning (1980), multinational companies (PMN) or foreign investors consider 3 things to decide to invest abroad (host country) known as *the OLI Framework* [11]. *The OLI Framework* is the potential advantages that companies can have to invest abroad (host country) which consists of: ownership advantages, location advantages, and internal advantages. In the Indonesian context, Location Advantages are the main focus of the government to try to increase local attractiveness. In the Location Advantages presented by Dunning, it is stated that factors such as low wages, open market access, human resource quality, natural resource potential, market size, and investment policies have an influence on increasing FDI. Therefore, the variables used in this study include non-oil and gas exports as a depiction of openness of market access, HCE (Household Consumption Expenditure) as a depiction of market size, HDI as an indicator of market quality from its human resource potential, UMP (Provincial Minimum Wage) as a reflection of labor costs, GRDP of the agricultural and mining sectors as a depiction of the potential of natural resources owned, as well as updates to government policies related to PMA in accordance with Dunning's theory and the problems currently facing Indonesia.

#### 2.1.2. The relationship between HCE (as a market size) and FDI

Household Consumption Expenditure (HCE) is often used as an indicator to assess market size because it directly reflects purchasing power and consumption levels [12]. Unlike Gross Regional Domestic Product (GRDP) per capita, HCE is more relevant to reflecting the size of the domestic market because it directly measures public spending, while GRDP per capita is more suitable for assessing average productivity and economic welfare [12]. In Dunning's theory, the larger the local market size, as seen from its high consumption patterns, the greater the attractiveness of this market for companies to engage in FDI. This statement is supported by research by Buciarda [13] and Purba [14] which states that high household consumption expenditure as representation of market size has a significant positive effect on FDI realization

#### 2.1.3. The relationship between HDI (as human resource quality) and FDI

Based on Dunning's theory, the availability of sustainable Human Resources (HR) is a crucial element in attracting FDI. Sustainable HR refers to quality human resources in terms of health, education, and participation in economic development. In several previous studies, the quality of HR is reflected by the Human Development Index (HDI) [15], [16]. In Dwitayanti et al.'s (2024) study [15], the HDI had a significant effect on the increase in FDI in Indonesia during the 2015-2022 period. Meanwhile, the results of Choirunnisa & Khoirudin's (2024) study [16] indicate that the HDI has a positive but insignificant effect on FDI.

#### 2.1.4. The relationship between non-oil and gas exports (as openness to market access) and FDI

The theory of *economies of scale* explains that countries that expand their export market reach can achieve greater economies of scale. In this case, foreign investors will exploit sectors with large economies of scale potential to gain greater profits [17]. For example, the multinational company Wilmar International benefits from investing in the palm oil sector, given that Indonesia is a major palm oil exporter. This company not only benefits from the domestic market but also from exports to international markets. Based on research by Nauly et al. (2020) [18], exports have a significant positive effect on FDI, especially non-oil and gas exports such as manufacturing and food.



### 2.1.5. *The relationship between UMP (as a representation of labor cost) and PMA*

In Eclectic Paradigm theory, labor costs are a crucial factor in foreign investment decisions, particularly for companies *seeking efficiency*. A Provincial minimum wage can attract investors in labor-intensive sectors by reducing production costs [19]. However, a high Provincial minimum wage does not always negatively impact capital-intensive sectors that rely on technology. Research by Pratiwi (2022) [2] shows that an increase in the Provincial minimum wage in Indonesia tends to reduce foreign investment in the manufacturing industry, although the effect varies across regions.

### 2.1.6. *The relationship between GRDP in the mining sector and the agricultural sector (as natural resource potential) and FDI*

The GRDP of the agricultural and mining sectors reflects the economic contribution of regional agricultural and mining exploration and production activities. A high GRDP value indicates the potential of these natural resource reserves and the readiness of infrastructure, which attracts foreign investment based on resource seeking [20]. Based on Dunning's (1980) Location Advantages theory [11], the availability of abundant natural resources increases investor interest. Research by also states that the significant contribution of agriculture and mining to GRDP opens up opportunities for the development of supporting industries and the integration of global supply chains.

### 2.1.7. *The relationship between the Job Creation Law and FDI*

Douglass North's institutional economics theory, regulatory stability, good institutional governance, and clear laws influence investment decisions. His research shows that stable institutions and sound legal regulations can reduce uncertainty and risk for investors [21]. This is supported by research by Fahad et al. (2022) [22] which states that harmonized government regulations in China regarding the supply of equipment and technology can attract greater foreign capital investment. This indicates a significant positive effect between effective investment policies and increased FDI

## 2.2. *Data and Data Sources*

The data in this study are secondary data in the form of annual data from 2018-2024 from the Central Bureau of Statistics (BPS), the Ministry of Trade, and the Investment Coordinating Board (BKPM). The data used are provincial-level data which are then formed into panel data consisting of 34 provinces with a time period of 7 years. The dependent variable in this study is the realization of FDI (million US\$). Meanwhile, the independent variables used are the Human Development Index (HDI) from the scale 0-100, Household Consumption Expenditure (HCE) (million US\$), non-oil and gas exports (million US\$), Provincial Minimum Wage (US\$), GRDP in the agricultural sector and the mining sector (million US\$), and dummy variables for the years before and after the enactment of the Job Creation Law (0: before (2018-2020); 1: after (2021-2024)).

## 2.3. *Analysis Method*

This study uses quantitative analysis methods consisting of descriptive analysis and inferential analysis. The descriptive analysis in this study is a quadrant analysis to achieve the research objectives related to the general overview of FDI realization and the variables suspected of influencing FDI realization in 34 provinces in Indonesia before and after the implementation of the Job Creation Law. The quadrant analysis before the Job Creation Law was conducted only in 2020. Meanwhile, the quadrant analysis after the Job Creation Law was conducted only in 2024. This is intended to see a comparison of the last year before the enactment of the Job Creation Law and its effects after the Job Creation Law is implemented (in 2024). This quadrant analysis will obtain a grouping of provinces into four categories and also which regions are assisted after the implementation of the Job Creation Law.

To achieve the research objectives related to the variables influencing FDI in 34 provinces in Indonesia from 2018 to 2024, an inferential analysis is required. The method used for this inferential analysis is



panel data regression. The stages of panel data regression analysis in this study, based on Gujarati & Porter (2009), are as follows:

1. Perform multiple linear regression analysis as a *baseline* before selecting a more complex model, with the initial model as follows:

$$FDI_{it} = \alpha + \beta_1 HCE_{it} + \beta_2 EXP_{it} + \beta_3 UMP_{it} + \beta_4 HDI_{it} + \beta_5 AGRICULTURE_{it} + \beta_6 MINING_{it} + \beta_7 STATUS_{it} + u_{it}$$

with:

$\alpha_0$	: Intercept
$\beta_1, \dots, \beta_4$	: Regression coefficient of independent variable
$u_{it}$	: Error term for province i in year t
$FDI_{it}$	: FDI realization in province i in year t
$HCE_{it}$	: Household Consumption Expenditure in province i year t
$EXP_{it}$	: non-oil and gas exports in province i in year t
$UMP_{it}$	: Minimum wage of province i in year t
$HDI_{it}$	: Human Development Index in province i in year t
$AGRICULTURE_{it}$	: GRDP of the agricultural sector of province i in year t
$MINING_{it}$	: GRDP of the mining sector of province i in year t
$STATUS_{it}$	: status of the omnibus law on the Job Creation Law in province i in year t

2. Checking the assumption of non-multicollinearity and normally distributed residuals

In the initial model, the residuals obtained from the model were not normally distributed, so the second step taken was variable transformation.

3. Variable transformation

In this study, the PMA variable exhibits a right-skewed distribution, so a natural logarithmic transformation was performed on the dependent variable, namely PMA realization. The model was then transformed into a log-linear model with the following model specifications:

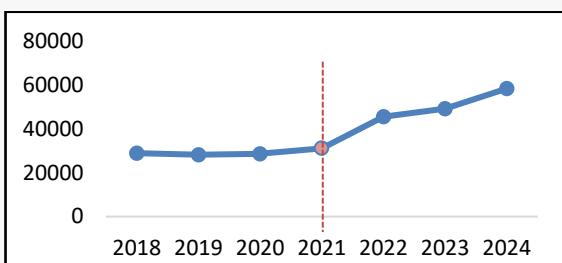
$$\ln(FDI_{it}) = \alpha + \beta_1 HCE_{it} + \beta_2 EXP_{it} + \beta_3 UMP_{it} + \beta_4 HDI_{it} + \beta_5 AGRICULTURE_{it} + \beta_6 MINING_{it} + \beta_7 STATUS_{it} + u_{it}$$

4. Panel data regression model estimation with *Common Effect Model (CEM)*, *Fixed Effect Model (FEM)*, and *Random Effect Model (REM)* with the model proposed in step 3
5. Selection between CEM and FEM with *chow test*
6. Selection between CEM and REM with *Lagrange Multiplier test* (if CEM is better in step 5)
7. Selection between FEM and REM with *Hausman test* (if FEM is better in step 5)
8. Examination of the assumptions of normality of residuals and non-multicollinearity in the selected models
9. Testing the significance of the selected model
10. Interpretation of the results of the selected model.

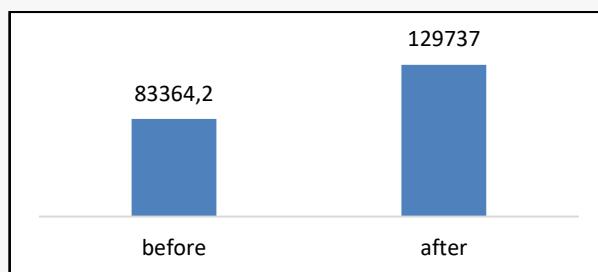
### 3. Result and Discussion

#### 3.1. General Overview of PMA Realization and its relationship with variables suspected of influencing PMA before and after the implementation of the Job Creation Law

Overall, national FDI realization has increased annually from 2021 to 2024, as shown in figure 3. The difference between national FDI realization before the enactment of the Job Creation Law (2018-2020) and after the enactment of the *omnibus law* (2021-2024) shows a significant difference. Figure 4 shows that the average national FDI realization after the enactment of the Job Creation Law has increased significantly compared to before the implementation of the Job Creation Law.



**Figure 3.** Realization of national FDI 2018-2024



**Figure 4.** Average national FDI realization before and after the Job Creation Law

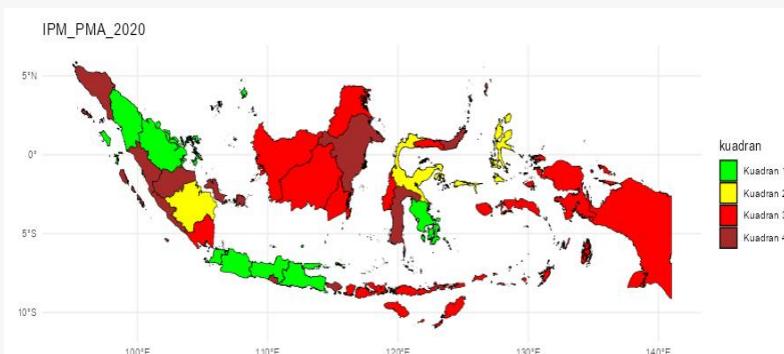
Despite a national increase, regional FDI realization in several regions has fluctuated. This indicates that many regions are still struggling to stabilize FDI realization within their regions. Figure 5 shows that several provinces have not been able to stabilize FDI realization within their regions and maintain its upward trend. Most of these provinces are located outside Java Island. This indicates that there is still inequality in FDI realization outside Java Island.



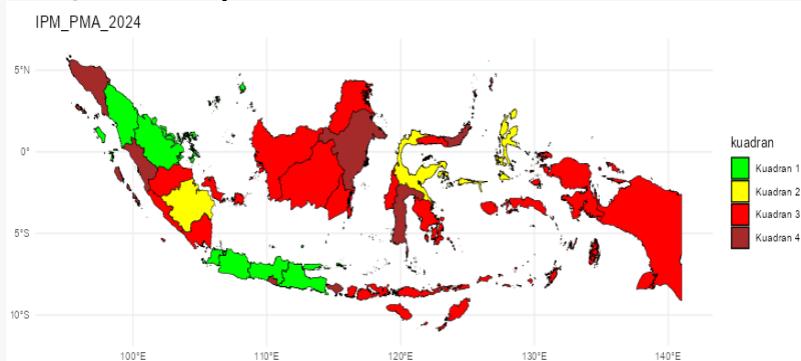
**Figure 5.** Trend of Regional FDI realization by province 2018-2024

To examine the relationship between FDI and the HCE (Household Consumption Expenditure), exports, natural resources, and the Human Development Index (HDI) before and after the implementation of the Job Creation Law, quadrant analysis can be used. In quadrant analysis, quadrant I depicts provinces with FDI realization and related variables above the national average. Quadrant II depicts provinces with FDI realization above the national average but with independent variables below the national average. Quadrant III depicts provinces with FDI realization and independent variables both below the national average. In contrast to quadrant II, quadrant IV depicts provinces with FDI realization below the national average even though the independent variables are above the national average.

Based on Figures 6 and 7, it can be analyzed that provinces in Quadrant I (HDI and FDI above the national average) are dominated by provinces on the island of Java. Furthermore, all provinces on the Papua Island have not experienced any change in quadrant despite the implementation of the Job Creation Law. There are also provinces in Quadrant 4, indicating that a high HDI does not necessarily lead to interest in foreign investment. This condition reflects the imbalance in economic structure and infrastructure readiness between regions, with provinces in Java excelling in infrastructure, human resources, and a stable investment climate [24]. The correlation coefficient between the HDI and FDI variables before and after the enactment of the Job Creation Law was approximately 0.069 and 0.063, respectively. This indicates that there was a decrease in the correlation coefficient between the HDI and FDI variables after the enactment of the Job Creation Law.

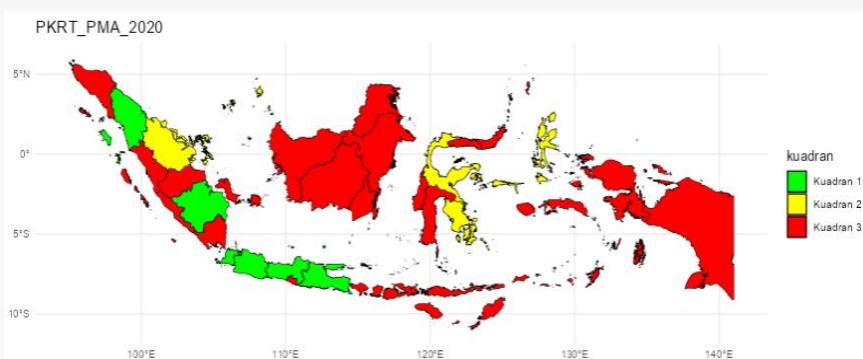


**Figure 6.** Quadrant analysis between FDI and HDI before the Job Creation Law

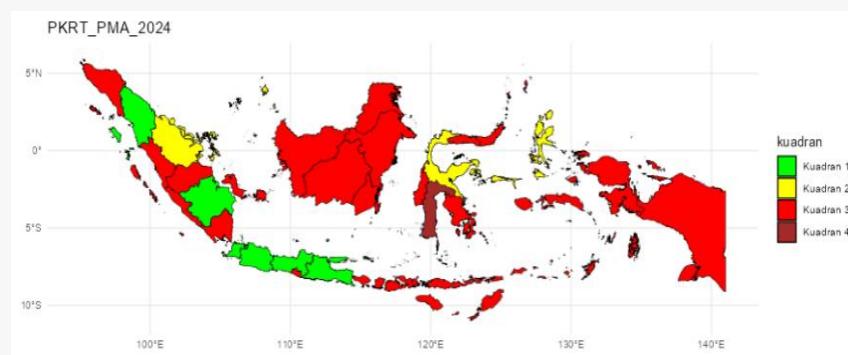


**Figure 7.** Quadrant analysis between FDI and HDI after the Job Creation Law

Based on Figures 8 and 9, it can be analyzed that Indonesian provinces are predominantly in quadrant 3, with FDI and HCE (Household Consumption Expenditure) below the national average. This indicates that the size of the domestic market at the regional level tends to be weak. However, provinces in Java show large domestic markets and are accompanied by high foreign investor interest. This indicates an imbalance in market size and investment interest in Indonesia area. These findings underscore the importance of the household consumption Expenditure (HCE) as an indicator of the size of a domestic market that has the potential to attract foreign investment. Theoretically, the greater the household consumption in a region, the greater the incentive for foreign investors to invest due to the guaranteed market demand. The analysis results align with dunning theory, showing that a high HCE ratio is associated with high FDI realization, and a low HCE ratio is associated with low FDI realization. The correlation coefficient between HCE and FDI variables before and after the enactment of the Job Creation Law was approximately 0.5447 and 0.4242, respectively. This indicates that HCE, as a representation of market size, has a quite strong correlation with FDI both before and after the enactment of the Job Creation Law.

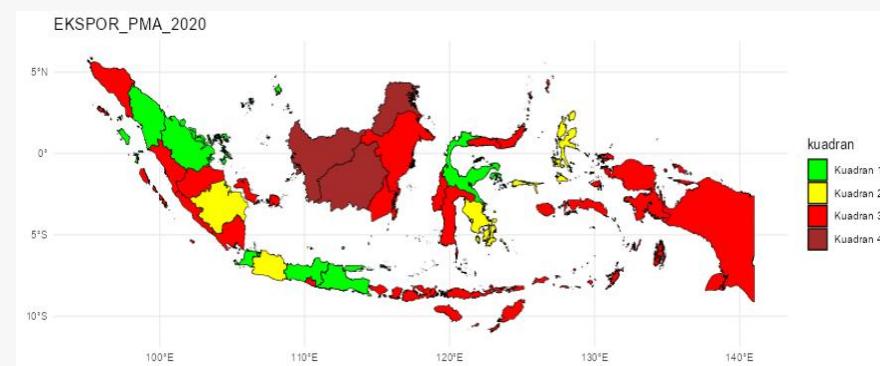


**Figure 8.** Quadrant analysis between FDI and HCE before the Job Creation Law

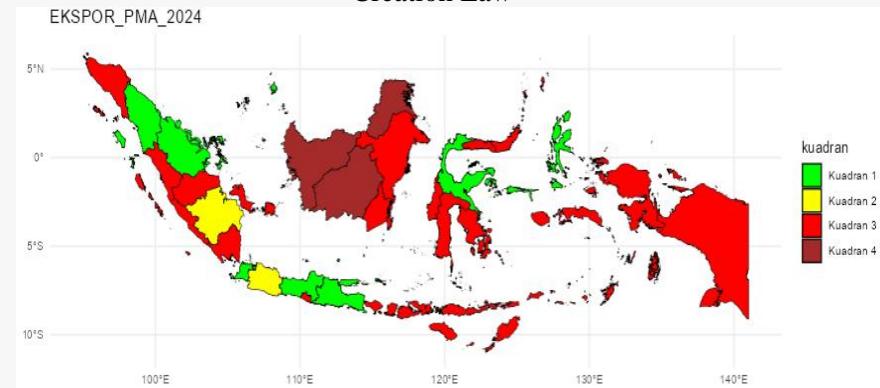


**Figure 9.** Quadrant analysis between FDI and HCE after the Job Creation Law

Based on Figures 10 and 11, it can be analyzed that all provinces in Papua Island consistently recorded FDI and non-oil and gas export values that were still below the national average both before and after the enactment of the Job Creation Law. Southeast Sulawesi Province, which was originally in quadrant 2, actually showed a decline in FDI and non-oil and gas export realization to below the national average, placing it in quadrant 3. One of the causes is declining global demand for stainless steel, a shift to lower-value products (ferronickel), limited downstreaming, and a lack of product diversification [25]. The correlation coefficient between the non oil and gas export and FDI variables before and after the enactment of the Job Creation Law was approximately 0.0792 and 0.1179, respectively. This indicates that non oil and gas export, as a representation of market openness, showed an increase in correlation with FDI after the enactment of the Job Creation Law.

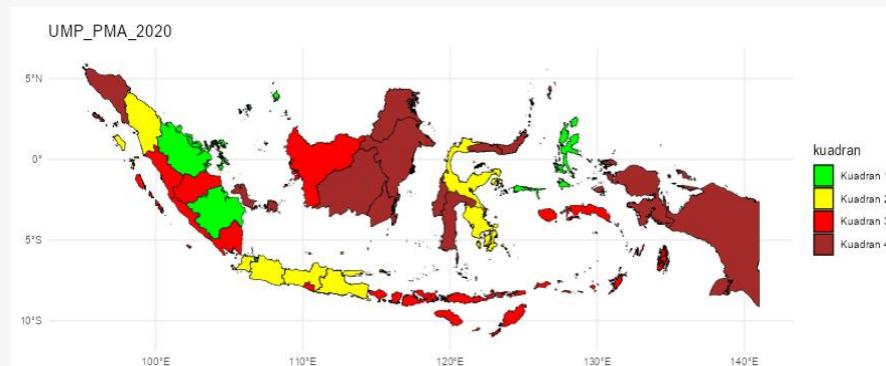


**Figure 10.** Quadrant analysis between FDI and non oil and gas export before the Job Creation Law

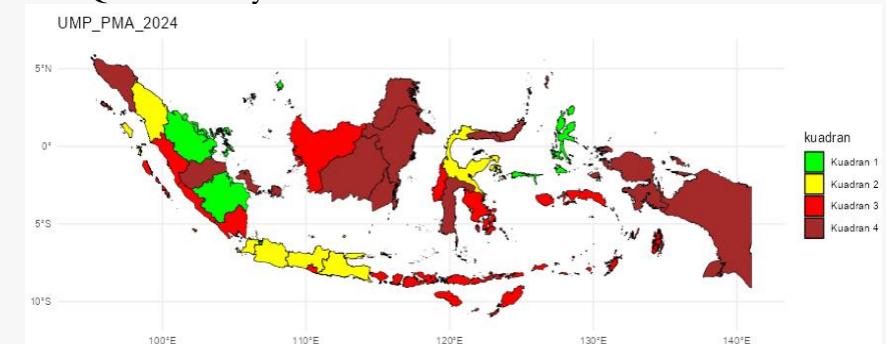


**Figure 11.** Quadrant analysis between FDI and non oil and gas export after the Job Creation Law

Based on Figures 12 and 13, it can be analyzed that most provinces in Papua and Kalimantan have minimum wage above the national average, followed by low FDI realization. This is consistent with *Dunning's eclectic theory*, which states that higher wages/labor costs reduce investor interest. This can be seen in provinces in Jawa Island, which tend to have wages below the national average, accompanied by high foreign investment in those regions. However, the analysis also shows that despite the UMP tending to be above the national average, foreign investor interest remains quite high in the provinces of DKI Jakarta, the Riau Islands, Riau, South Sumatra, and North Maluku. These five provinces are industrial areas with high labor productivity [26]. The correlation coefficient between the UMP and FDI variables before and after the enactment of the Job Creation Law shows a small correlation of around 0.001. This indicates that the UMP, as a representation of labor costs, has a low correlation with attracting foreign investors to Indonesia.

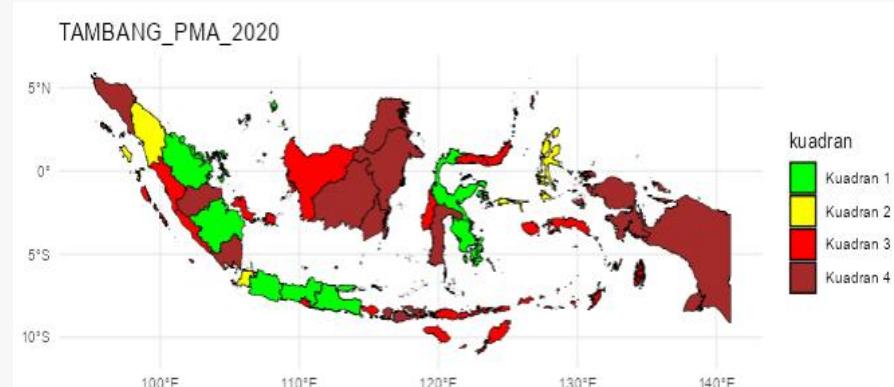


**Figure 12.** Quadrant analysis between FDI and UMP before the Job Creation Law

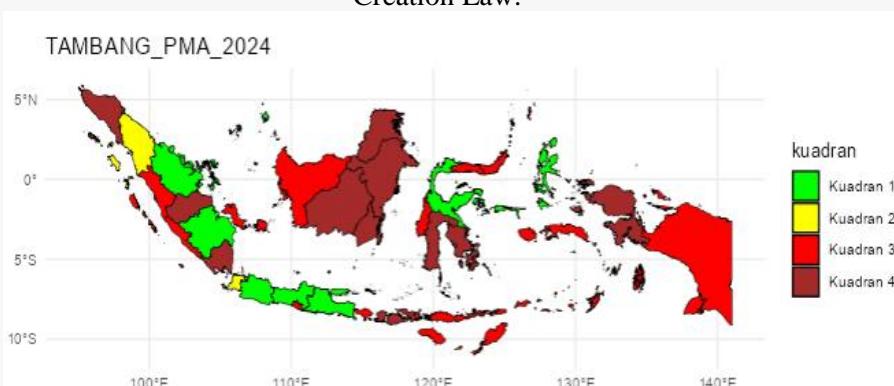


**Figure 13.** Quadrant analysis between FDI and UMP after the Job Creation Law

Based on Figures 14 and 15, it can be analyzed that several regions still have high GRDP in the mining sector but low FDI realization, such as provinces in Kalimantan. This is partly due to the dominance of mining production in these regions by domestic companies [26]. Several provinces, despite having low mining sector output, are still able to attract investors, such as DKI Jakarta, Banten, and North Sumatra. This finding suggests that the presence of the mining sector is not the sole determining factor in attracting foreign investment. The correlation coefficient between GRDP in the mining sector and FDI before and after the enactment of the Job Creation Law was approximately 0.0356 and 0.0571, respectively. This indicates that GRDP in the mining sector, as a representation of natural resource potential, showed an increase in correlation with FDI after the enactment of the Job Creation Law.

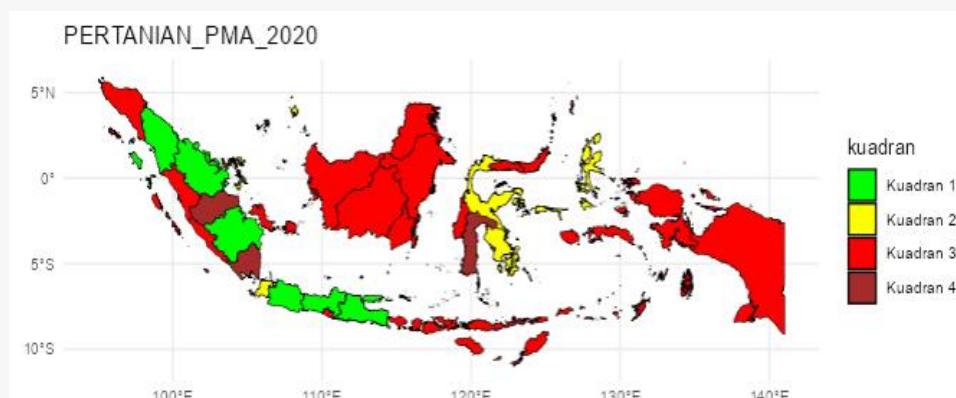


**Figure 14.** Quadrant analysis between FDI and GRDP in the mining sector before the Job Creation Law.

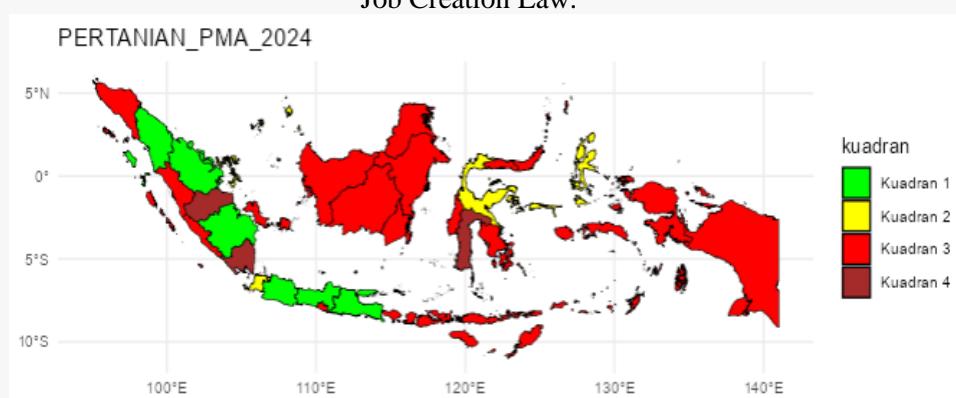


**Figure 15.** Quadrant analysis between FDI and GRDP in the mining sector after the Job Creation Law

Based on Figures 16 and 17, it can be analyzed that both before and after the implementation of the Job Creation Law, agricultural sector output and FDI realization in all provinces on the islands of Papua and Kalimantan were below the national average. Agricultural sector output tends to be high in Java, which is accompanied by high foreign investor interest in Java. Provinces with low agricultural GRDP but high FDI realization include Banten, DKI Jakarta, the Riau Islands, North Maluku, and Central Sulawesi. This indicates that although agricultural sector output in these industrial provinces is quite low, it does not necessarily lead to a decline in foreign investment interest. The correlation coefficient between GRDP in the mining sector and FDI before and after the enactment of the Job Creation Law was approximately 0.0878 and 0.0563, respectively. This indicates that GRDP in the agricultural sector, as a representation of natural resource potential, showed a decline in correlation with FDI after the enactment of the Job Creation Law.



**Figure 16.** Quadrant analysis between FDI and GRDP in the agricultural sector before the Job Creation Law.



**Figure 17.** Quadrant analysis between FDI and GRDP in the agricultural sector after the Job Creation Law.

Overall, the quadrant analysis shows that there has not been a significant shift in the distribution of provinces based on the variables analyzed, both before and after the enactment of the Job Creation Law. Provinces with high economic and human development performance are still dominated by regions in Java, while most provinces outside Java, especially eastern Indonesia, tend to remain below the national average. Most regions in Indonesia still have FDI realization below the national average followed by the availability of few natural resources, small domestic market size, low HDI, or low non-oil and gas exports. There is also an indication that high UMP has a negative relationship with FDI.

Based on the results of the quadrant analysis, most regions have a UMP above the national average with FDI realization below the national average. This result is in line with the eclectical dunning theory which states that the direction of the relationship between labor production costs is inversely proportional to investment realization. In addition, some provinces show unique characteristics such as high FDI realization with little natural resource availability, small domestic market size, or low non-oil and gas exports.

### 3.2. Variables Influencing Regional FDI in Indonesia Before and After the Implementation of the Omnibus Law Job Creation Law

This study began by constructing a basic multiple linear regression model as a *baseline* to understand the initial relationship between the independent variables and FDI realization. Initial examination showed that the residuals from the basic model were not normally distributed, and the FDI variable had a right-skewed distribution. Therefore, a natural logarithm transformation was performed on the FDI variable to bring the distribution closer to normal. The model was then transformed into a log-linear (semi-log) model.



Based on the testing conducted with the Hausman test obtained a *p-value* = 0.3566 greater than the 5% significance level (0.05). This indicates that the data is better estimated with Random Effect Model (REM). From the estimation results, the following equation is obtained

$$\ln(FDI_{it}) = 6,5615 + 0,0000525 HCP_{it} + 0,0000396 EXP_{it} - 0,0040 UMP_{it} - 0,0552 HDI_{it} - 0,000146 AGRICULTURE_{it} + 0,0012 MINING_{it} + 0,2922 STATUS_{it}$$

In the model estimated with a semi-log model, the interpretation used is in accordance with Gujarati & Porter (2009) [23], namely that every 1 unit increase in variable X (dependent) will cause a change in Y (independent) of  $(\exp(\beta) - 1) \times 100\%$ , assuming that other variables in the model are considered constant.

The regression assumption check of the best model produced (REM model) consists of 2 assumptions, namely checking the residual normality assumption and non-multicollinearity between independent variables. In checking the residual normality assumption, the Jarque-Bera value was obtained at 4.56 with a p-value of 0.1019 so that the residual normality assumption can be said to have been met because the JB value  $< \chi^2_{0.05(2)}$  ( $4.56 < 5.99$ ) and the p-value (0.1019)  $> 0.05$ . Furthermore, in the VIF to check the non-multicollinearity assumption between independent variables, the VIF value was obtained  $< 10$  for all independent variables, which means the non-multicollinearity assumption was met. The next stage is to assess whether the resulting model is meaningful enough and can be interpreted using the F test adjusted R<sup>2</sup>, and T test. The F value obtained for the simultaneous test (F test) is 11.47 with a p-value of 0.000, which indicates that the log-lin model with the REM approach is simultaneously significant because it has a calculated  $F > F_{0.05(7,230)}$  ( $11.47 > 2.010$ ) and a p-value  $< 0.05$ .

The results of the processing showed that in the partial test (T-test), 4 of the 7 independent variables had a significant effect on FDI, as shown in Table 8. The HCE variable, which reflects market size, and non-oil and gas exports, which represent openness to market access, showed a positive effect on changes in FDI realization. Human resources, represented by the HDI, did not affect changes in FDI realization. Meanwhile, in the natural resources sector, the GRDP of the mining sector showed a positive effect on changes in FDI realization, although the GRDP of the agricultural sector did not have a significant effect. The labor wage variable, which is approximated by the Provincial Minimum Wage (UMP), also did not affect changes in FDI realization. Conversely, the Job Creation Law variable showed the greatest influence on changes in FDI realization

Table 1. Estimation of REM modeling parameters

Variables	coefficient	t <sub>hitung</sub>	t-table	p-value	Statistical summary
(1)	(2)	(3)	(4)	(5)	(6)
C	6.561543*	2,503	1,653	0.0130	R <sup>2</sup>
EXPORT	3.96E-05*	2,876	1,653	0.0044	Adj R <sup>2</sup>
HDI	-0.055216	-1,564	1,653	0.1191	F <sub>hitung</sub>
AGRICULTURE	-0.000146	-1,759	1,653	0.0798	p-value
HCE	0.0000525*	4,322	1,653	0.0000	
STATUS	0.292210*	2,515	1,653	0.0126	
MINING	0.001211*	5,048	1,653	0.0000	
UMP (Province Minimum Wage)	-0.004035	-1,145	-1,653	0.2532	

Note: \* significant at 5 percent significance level

The results show that for every US\$100 million increase in Household Consumption Expenditure (HCE) in a province, the average change in FDI realization will increase by 0.525%, assuming that other independent variables in this study are held constant. This indicates that the results of the study are in



line with Dunning's theory, which states that foreign investors tend to be attracted to large markets and have high purchasing power, which is reflected in HCE. Similarly, for every US\$100 million increase in non-oil and gas exports in a province, the average change in FDI will increase by 0.396%, assuming that other independent variables in this study are held constant. These results are supported by research by Luluk & Octavia (2020) [24] who argue that strategic sectors that have entered the international market, such as palm oil, coal, and the mining and plantation processing industry, tend to attract more foreign investors. This finding supports the view of Rho & Rodrigue (2018) [5] who argue that economic openness can be a positive signal for investors regarding the logistics efficiency and export competitiveness of a region.

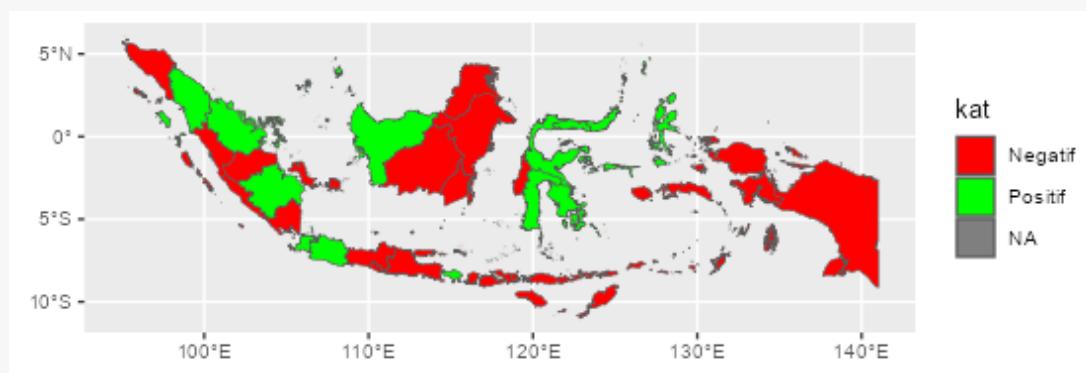
The Provincial Minimum Wage (UMP) variable, used as a proxy for labor costs, showed no significant effect on FDI. This indicates that labor costs were not a major determinant for foreign investors during this observation period. This is consistent with research by Sari et al. (2023) [28] which showed no effect of labor wages on FDI realization in Indonesia from 2017 to 2021. Furthermore, a cross-country study by Sunhae & Young-Hoon (2021) [29] showed that wage levels only negatively affected FDI in countries or regions with weak institutions, while in regions with good governance, the impact was insignificant. This suggests that local institutional characteristics significantly determine investors' sensitivity to labor costs.

Furthermore, the findings of this study indicate that the HDI also has no effect on the realization of FDI at the regional level in Indonesia. This finding aligns with the findings of Astikawati & Sore (2021) [30] who stated that the HDI has no effect on foreign investment in Indonesia because, according to Astikawati & Sore, Indonesia has entered a *mature state* with higher labor costs. Furthermore, research by Sadeghi et al. (2020) [31] found that in developing countries, the HDI is not necessarily effective in encouraging FDI, unless the economy is already highly complex and human resources are being used productively.

Furthermore, the mining sector's GRDP has been shown to have a significant positive effect on FDI. This study found that for every US\$1 million increase in the mining sector, FDI increased by an average of approximately 0.1212% across all provinces and time periods. This indicates that regions with high mining sector contributions tend to be more attractive to foreign investors, consistent with the characteristics of natural resource-based investments. Conversely, the agricultural sector did not show a significant effect on FDI. This may reflect the sector's low added value, as well as limitations in business scale and supporting infrastructure, which make the agricultural sector less attractive to foreign investment.

Specifically, the Job Creation Law policy dummy variable (STATUS) shows a positive and significant effect on FDI, with a coefficient estimate of 0.292. This means that after the enactment of the Job Creation Law, average FDI realization increased by 33.9% ( $\exp(0.292) - 1 \times 100\%$ ) compared to before the policy was implemented. This finding indicates that regulatory reform through the *omnibus law* sends a positive signal to foreign investors, particularly in terms of simplifying licensing and legal certainty. However, the impact is not evenly distributed across provinces and still depends on structural conditions and regional capacity to absorb foreign investment.

*Random effect* estimates indicate that there is random variation between provinces that influences FDI. Most provinces exhibit a negative *random effect* (figure 18). Only 15 of the 34 provinces have a positive *random effect*. This indicates that the distribution of potential foreign investment is uneven, and only a few provinces have hidden characteristics (*unobserved heterogeneity*) that randomly favor FDI entry. Interestingly, several provinces in Java have negative *cross-sectional random effect values*, as seen in figure 18. These findings suggest that Java's advantage in attracting FDI is largely explained by the variables in this study.



**Figure 18.** Results of random effect cross section

#### 4. Conclusion

Based on the findings and analysis in this study, the results are in line with Dunning's eclectic theory, which shows that market size (HCE), market openness (non-oil and gas exports), natural resource potential (GRDP in the mining sector), and the Job Creation Law have a positive effect on regional FDI realization in Indonesia. Natural resource potential in the mining sector has a more positive effect on FDI realization than natural resources in the agricultural sector. Furthermore, the quadrant analysis shows that many regions outside Java have low FDI realization, followed by low investment-supporting variables, indicating inequality in FDI realization. This is reinforced by the results of individual effects, which indicate that the Java region's advantage in attracting FDI is largely explained by the variables in this study. Due to data limitations, this study only used 34 of Indonesia's 38 provinces. Therefore, it is recommended that further research use all provinces in Indonesia.

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