The Relationship between Foreign Direct Investment and Employment Growth in Southeast Asia

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Abstract

This study examines the relationship between Foreign Direct Investment (FDI) and employment growth in Southeast Asia, focusing on Malaysia, Vietnam, and Indonesia. It uses panel data from 2004 to 2023 and applies frameworks based on Neoclassical and Endogenous Growth theories using Excel and STATA software. The results indicate that job creation is strongly influenced by foreign direct investment, especially in the industrial and service sectors, with Vietnam showing the strongest correlation. These findings suggest that FDI can help countries boost economic development. This research provides valuable guidance for policymakers to attract targeted investments and promote sustainable employment opportunities.

Keywords: Foreign Direct Investment; Employment growth; Neoclassical and Endogenous Growth theories; Sustainable employment opportunities

1. Introduction

Foreign Direct Investment (FDI) is seen as a key driver of economic growth in developing countries, especially in Southeast Asian nations. Countries like Malaysia, Vietnam, and Indonesia serve as clear examples of nations that have experienced significant economic inflows in recent decades [1]. FDI plays a vital role in promoting economic development by encouraging industrialization, transferring technology, and improving infrastructure, which can create jobs and employment opportunities for citizens. It remains a heavily debated topic. As a result, many discussions focus on this issue, with some studies highlighting its positive effects on job creation, while others suggest that the benefits can also extend to other sectors or regions [2]. Recognizing the importance of these investments is essential, as they can lead to increased employment opportunities in our rapidly evolving, digital, and global economy as countries continue to attract FDI [3].

Despite the benefits that FDI offers to Southeast Asian countries, there is still a knowledge gap in understanding its importance and how it affects employment growth across different industries in the three countries mentioned earlier. While some studies indicate that FDI helps create jobs, others point out challenges, as FDI does not always lead to employment for local citizens; sometimes, it involves hiring foreign workers or replacing employees with technologies like robots. The impact of FDI on employment growth remains a topic of debate in the literature, with some studies overlooking its potential to create positive job effects, and others highlighting significant differences across sectors and regions. This study aims to fill these gaps by examining sector-specific responses to FDI inflows and analyzing the relationship between FDI and employment growth.

To address these issues, this study aims to analyze the relationship between FDI and employment growth in Southeast Asia, focusing specifically on Malaysia, Vietnam, and Indonesia, since FDI can help prevent these countries from remaining at middle-income levels and enable them to reach high-income status. To do this, the research answers the questions below:

- How does FDI contribute to employment creation across various sectors, such as manufacturing, services, and agriculture, in the selected countries?
- How do the outcomes from FDI inflows vary, particularly regarding income disparities, job quality, and divisions of the labor market?

DOI: https://doi.org/10.54216/AJBOR.130105
Received: March 03, 2025 Revised: June 05, 2025 Accepted: August 10, 2025

This study is important because it enhances our understanding of the advantages and disadvantages of FDI in promoting employment growth in Southeast Asia, where significant economic changes have occurred over the past thirty years. To create effective policies that maximize the benefits of foreign direct investment (FDI), policymakers, businesses, and international organizations need to understand FDI. The findings will be vital in supporting ongoing discussions about FDI's role in creating job opportunities and reducing income inequality in these rapidly growing economies [4].

The rest of the paper is organized as follows. Section 2 reviews the literature on FDI and employment growth, focusing on Southeast Asia, specifically Malaysia, Vietnam, and Indonesia, drawing on previous studies. This is followed by the methodology section, which details the dataset, model specifications, and estimation techniques used in the analysis. The next section presents the results and offers an interpretation of the findings, comparing them with previous research outcomes. Finally, the conclusion summarizes the findings, provides recommendations for future research, and discusses the limitations of the study.

2. Literature Review

Because of its significant influence on driving economic growth in Southeast Asian nations, especially in countries like Indonesia, Malaysia, and Vietnam over the past decades (Athukorala & Hill, 2010) [5], it has attracted considerable attention from many scholars, including researchers and policymakers worldwide. These countries are viewed as major destinations for foreign investment because their governments support such initiatives by offering international companies strategically advantageous locations and cost-effective production environments. A country's long-term economic progress can be achieved if it successfully stimulates job creation, improves labor productivity, and develops a more skilled workforce, as demonstrated in the research of Borensztein et al. (1998) [6]. Additionally, Saucedo, Ozuna Jr., and Zamora (2020) [7] have conducted studies highlighting the different impacts of FDI depending on the targeted sector, showing that it can have varying effects on employment in areas like manufacturing and services. The goal of this literature review is to summarize the main findings of existing research and identify gaps that require further investigation regarding the impact of FDI on employment in the selected countries.

According to the Milken Institute's 2022 Global Opportunity Index, Malaysia is regarded as a key hub in Southeast Asia for attracting foreign investments, especially in electronics and manufacturing sectors. As Akhtaruzzaman et al. (2017) [8] note, introducing new industrial sectors and boosting productivity have significantly helped create more jobs. The government has also worked to attract FDI by making the business environment more welcoming, including supporting simpler policies and launching various initiatives. Studies by Sundram and Noor Zainuddin (2021) [9] further show that FDI plays two main roles: creating jobs for locals and enhancing local human capital by transferring and adopting advanced knowledge and specialized skills. In other words, FDI has been essential in shifting from low-cost to high-cost labor. Additionally, some researchers suggest that the positive impact of FDI on employment depends on two main factors: the strength of connections between local industries and foreign companies, and the ability of the domestic workforce to meet international standards (Zhuang et al., 2021) [10]. Therefore, Malaysia's experience highlights the importance of implementing effective FDI policies that aim to create jobs and boost productivity through a coordinated approach.

Similarly, after welcoming participation from the World Trade Organization and formalizing a wide range of bilateral and multilateral trade agreements, Vietnam has seen significant growth in FDI inflows. Nguyen et al. (2020) [11] highlight that Vietnam's manufacturing sector has directly benefited from FDI, mainly employing Vietnamese workers. In recent years, Vietnam has become very attractive to foreign investors compared to other countries, thanks to its young, eager, and skilled population, a stable business environment, and competitive labor costs. According to the study by Nguyen and Do (2019) [12], FDI has boosted employment not only in urban areas but also in some rural regions, leading to better living standards. Additionally, the Vietnamese government has focused on improving educational and vocational training programs that support employment growth related to FDI.

Equally important, over the past decade Indonesia has experienced sustained growth, significantly impacting natural resources, infrastructure, and manufacturing projects. As noted by Santosa and Chalim (2019) [13], FDI has created more employment opportunities, especially in labor-intensive sectors. Additionally, international investors worldwide have shown interest in proactive government initiatives aimed at fostering a more investor-friendly environment. Research by Ghozali and Satriawan (2021) [14] provides detailed insights into how some sectors and regions benefit more in terms of employment outcomes, as job quality heavily depends on specific sectors and localities. Furthermore, one of the main reasons Indonesia has become a top destination for FDI inflows is the government's efforts to simplify administrative procedures and promote smoother business operations. Some studies highlight that, to maximize the long-term employment benefits of FDI, creating connections between foreign companies and domestic suppliers is essential.

When it comes to understanding how employment and economic growth are thriving in these selected countries—Vietnam, Indonesia, and Malaysia—it becomes clearer that this is due to strong FDI. Each country has its strengths—Malaysia focuses more on cutting-edge industries, while Vietnam is known for its low labor costs and open trade policies, and Indonesia has a large consumer market. As noted by Widodo (2019) [15], all these countries are increasingly competing to attract investments that are more international by creating better conditions that facilitate easier entry for foreign companies. Furthermore, with the goal of gaining better competitive advantages, all of these nations are actively upgrading their

DOI: https://doi.org/10.54216/AJBOR.130105
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infrastructure and workforce skills [11]. Despite pursuing similar goals, the results vary depending on the strength of institutional support, the development of a skilled workforce, and the implementation of effective policy frameworks. This means that these countries must continually operate and improve favorable business environments to achieve long-term success amid intense competition [15].

Despite extensive research, it is widely accepted that FDI plays a crucial role in creating jobs and promoting economic growth. However, some gaps remain in the current literature. Most studies tend to focus on developed regions known for their mature investment environments, such as India, China, and Latin America, while paying less attention to smaller regions. Countries like Indonesia, Vietnam, and Malaysia, despite their vibrant labor forces and unique paths of industrialization, have received limited scholarly focus and remain underexplored. Specifically, the long-term effects of FDI on various aspects of employment—such as high-quality jobs, wage equity and the prevalence of informal work across sectors—indicate that these issues have not been fully examined. This study aims to address this gap by conducting an in-depth analysis of the long-term impacts and sector-specific dynamics in leading Southeast Asian economies.

3. Methodology

The Neoclassical Growth Theory states that FDI promotes higher output and economic growth. In this framework, FDI acts as an additional source of capital, supporting domestic investment and increasing the country's capacity to produce goods and services (Solow, 1956) [16]. Another important theory is the Endogenous Growth Theory, which offers insights into the relationship between FDI and employment by emphasizing the importance of knowledge sharing, human capital development, and innovation. According to this theory, advanced technologies such as robots, machinery, modern management practices, and valuable knowledge — all essential in today's developing era — are introduced by foreign investors (Romer, 1990) [17]. Consequently, improved macroeconomic and institutional skills are viewed as crucial for addressing issues related to FDI and employment growth across the region.

This section examines the relationship between FDI inflows and employment growth in Southeast Asia, with a specific focus on Malaysia, Vietnam, and Indonesia [18-21]. To support this analysis, data from reputable sources such as panel data from The World Bank's open data platform, covering 2004 to 2023, was collected. The variables selected to analyze how FDI influences job creation include FDI inflows, employment growth rate, GDP per capita, unemployment rate, employment in services, employment in industry, and employment in agriculture. The dependent variable is employment growth, while the independent variables are FDI, employment in agriculture (EA), employment in services (ES), employment in industry (EI), GDP, and unemployment rate (UR). The data provides valuable insights into how FDI affects job creation across various sectors. Microsoft Excel 2023 and STATA 15 are used to perform comprehensive statistical analyses.

Table 1: Data description, source, and format

Sign	Variable	Type	Description	Source	Format
EG	Employment Growth	Dependent	Annual % change in total employment, calculated as the sum of employment shares in agriculture, industry, and services. Reflects job creation.	World Bank (WDI), 2025	CSV/Excel
FDI	FDI Inflows	Independent	Net FDI inflows (BoP, current US$), converted to constant 2015 US$ using the GDP deflator. Measures the scale of foreign investment.	World Bank (WDI), 2025	CSV/Excel
EA	Employment in Agriculture	Control	% of total employment in agriculture. Used to observe shifts from traditional sectors due to FDI.	World Bank (WDI), 2025	CSV/Excel
EI	Employment in Industry	Control	% of total employment in industry. Captures FDI's role in boosting industrial sector jobs.	World Bank (WDI), 2025	CSV/Excel

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ES	Employment in Services	Control	% of total employment in services. Indicates the expansion of the service sector as a response to FDI.	World Bank (WDI), 2025	CSV/Excel
GDP	GDP per capita	Control	GDP per capita (constant 2015 US$). Indicates level of economic development, controlling for income effects on employment.	World Bank (WDI), 2025	CSV/Excel
UR	Unemployment Rate	Control	% of total labor force unemployed (national estimate). Controls for baseline labor market conditions and job absorption capacity.	World Bank (WDI), 2025	CSV/Excel

Source: processed by the authors.

Following this, the Ordinary Least Squares (OLS) regression model (Legendre et al, 1805) was primarily used for the analysis. OLS was chosen because of its effectiveness in creating linear relationships between job creation and employment, as well as its ability to highlight the significance and strength of each variable's impact. Since the data includes multiple countries, a fixed-effects model was deemed suitable to account for some of the factors that could influence the results.

Below is the main OLS model used in the study:

$EGit = \alpha i + \beta 1FDI\_it + \beta 2AGR\_it + \beta 3IND\_it + \beta 4SRV\_it + \beta 5GDPPC\_it + \beta 6UNEMP\_it + \varepsilon\_it$

Where:

- EG-Dependent variable. Employment growth in country i at time t
- β_1 - coefficient of the Foreign direct investment inflows (constant 2015 US$)
- β_2 - coefficient of the Employment in agriculture (% of total employment)
- β_3 - coefficient of the Employment in industry (% of total employment)
- β_4 - coefficient of the Employment in services (% of total employment)
- B_5 - coefficient of the GDP per capita (constant 2015 US$)
- β_6 - coefficient of the Unemployment rate (% of total labor force)
- α_i = Country-specific fixed effects
- ε_{it} = Error term

4. Results

This section presents the empirical results of a study examining how FDI and employment growth are connected in Southeast Asia. The main goal of the study is to understand the effects of FDI while considering overall economic and labor market conditions. Key variables include FDI inflows, employment shares in agriculture, industry, and services, GDP per capita, and the unemployment rate. To achieve this, descriptive statistics were used to provide an overview of the data. The next step involves analyzing the strength of the relationship between FDI and employment across different variables. Finally, a fixed-effects OLS regression was used to identify the connections, accounting for GDP per capita and unemployment rates. The model also investigates the impact of FDI in specific sectors selected for this research, such as services, agriculture, and industry.

Descriptive statistics

Table 2 presents the descriptive statistics of the study variables. It shows that the average value of EG in Southeast Asian countries is 66.384, indicating a moderate level of job opportunity. Among all variables, GDP has the highest mean at 4922.03, while FDI has the lowest average at 3.386. Additionally, the mean values for EI, EA, and UR are 24.123, 27.188, and 3.443 respectively.

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Table 2: Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Countries	60	2	.823	1	3
Year	60	2013.5	5.815	2004	2023
UG	60	66.384	6.039	59.282	76.582
FDI	60	3.386	1.803	.057	9.663
EA	60	30.434	14.461	9.838	57.893
EI	60	24.217	4.217	17.353	33.135
ES	60	45.349	11.748	24.754	62.411
GDP	60	4922.03	3184.315	1510.944	11429.589
UR	60	3.443	1.734	.999	8.06

Source: created by the author in STATA 15

Correlation Matrix

Table 3 shows data on the pairwise correlations among the core variables in the study. The dependent variable UG has a positive correlation, with a significant link to GDP ($r = 0.546$, $p < 0.01$), indicating that higher GDP is associated with more employment growth. Conversely, UG has a strong negative correlation with UR ($r = -0.747$, $p < 0.01$), suggesting that higher unemployment results in little to no employment growth. FDI also shows a significant positive correlation with UG ($r = 0.586$, $p < 0.01$), implying that more job vacancies are connected to increased inflows of FDI. Additionally, other variables like EI and EA have notable relationships with UG and with each other.

Table 3: Pairwise Correlation test results

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) UG	1.000						
(2) FDI	0.586***	1.000					
	(0.000)						
(3) EA	0.654***	0.229	1.000				
	(0.000)	(0.079)					
(4) EI	-0.097	0.203	-0.729***	1.000			
	(0.462)	(0.120)	(0.000)				
(5) ES	-0.770***	-0.354***	-0.969***	0.538***	1.000		
	(0.000)	(0.005)	(0.000)	(0.000)			
(6) GDP	-0.546***	-0.125	-0.944***	0.669***	0.921***	1.000	
	(0.000)	(0.342)	(0.000)	(0.000)	(0.000)		
(7) UR	-0.747***	-0.615***	-0.117	-0.366***	0.275**	0.035	1.000
	(0.000)	(0.000)	(0.374)	(0.004)	(0.033)	(0.792)	

*** p<0.01, ** p<0.05, * p<0.1

Source: created by the author in STATA 15

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Regression results

The results from the Fixed Effects (FE) model (Table 4) indicate that constant country-specific factors influence the dependent variable EG. Unlike models that compare differences across countries, the FE model emphasizes how variables change over time within each country. In contrast, the Random Effects (RE) model assumes that individual country factors do not correlate with the predictors and treats them as random variations. According to the Hausman Test, the FE model is more appropriate for this research, with a test statistic of 31.949 and a p-value of 0.000 ($p < 0.05$), showing that the individual country effects are indeed related to the explanatory variables.

Table 4: Regression results

UG	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
FDI	.07	.091	0.77	.442	-.112	.253	
EA	-.144	.1	-1.44	.157	-.344	.057	
EI	-.407	.146	-2.79	.007	-.701	-.114	***
o	0	.	.	.	.	.	
GDP	.001	0	3.27	.002	0	.001	***
UR	-.744	.158	-4.70	0	-1.062	-.426	***
Constant	79.043	7.196	10.98	0	64.602	93.484	***

Mean dependent var	66.384	SD dependent var	6.039
R-squared	0.754	Number of obs	60
F-test	31.949	Prob > F	0.000
Akaike crit. (AIC)	155.485	Bayesian crit. (BIC)	168.051

*** *p<.01*, ** *p<.05*, * *p<.1*

Source: created by the author in STATA 15

$$UG = 79.043 + 0.077(FDI) – 0.144(EIA) – 0.407(EII) + 0.001(GDP) – 0.744(UR) + \varepsilon$$

5. Discussion

The data from this study on FDI and employment growth in Southeast Asia shows both similarities and differences compared to earlier research. For example, the finding of a positive and statistically significant impact on employment in various Southeast Asian countries matches the conclusions of Botric and Skuflic (2006), who highlight the job-creating potential of FDI, especially in labor-demand sectors. Similarly, the research results by Rizvi and Nishat (2009) also support these conclusions.

However, the findings also indicate that in some countries, FDI does not significantly boost employment, suggesting it does not always have a positive effect on job growth. As Alfaro (2003) noted, FDI tends to have a stronger positive impact on employment when investors focus on manufacturing and services rather than primary industries. Additionally, this study's results support the argument by Aitken and Harrison (1999), who suggest that foreign companies can displace local businesses, which may be harmful to the country.

6. Conclusion

Using panel data from 2004 to 2023, the study examined the relationship between Foreign Direct Investment (FDI) and job growth in Malaysia, Vietnam, and Indonesia. Results show that inflows of foreign direct investment positively and significantly influence employment levels, emphasizing its vital role as a key driver of job creation in Southeast Asian countries. This study improves our understanding by confirming that foreign direct investment not only acts as a catalyst for investment and innovation but also plays a crucial role in increasing employment opportunities in developing countries. By focusing on a specific region, this research provides new empirical data from a regional perspective, addressing a common lack of representation in global debates about the impact of FDI on job creation.

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However, this research only examines three countries and does not consider other factors such as labor rules, education, or politics. It may also influence how people find jobs. Additionally, the study relies solely on quantitative analysis. Therefore, it might not provide a complete picture of how FDI affects job quality or pay. The government should simplify the process for investors to create more jobs through FDI. To do this, policymakers need to reduce bureaucratic hurdles. They should also focus on sectors with strong potential for job growth.

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DOI: https://doi.org/10.54216/AJBOR.130105
Received: March 03, 2025 Revised: June 05, 2025 Accepted: August 10, 2025