LABOR AND INFRASTRUCTURE FACTORS AFFECTING PROVINCIAL DISTRIBUTION OF FOREIGN DIRECT INVESTMENT IN VIETNAM

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Abstract - The study assesses the influence of labor and infrastructure on attracting foreign direct investment (FDI) to the provinces of Vietnam in the period of 2009 - 2020. Research results from linear regression model and random effects estimation method have confirmed the importance of human capital and infrastructure in attracting FDI. The labor-related aspects in this study confirm that tendency of MNEs focusing on labor-intensive industries in Vietnam has not changed. The study also provides policy implications as building and improving the quality of infrastructure with the main goal of reducing inequality in attracting more FDI inflows to Vietnam's provinces in the near future. In addition, the workforce needs to have a plan to prepare themselves with solid knowledge and necessary skills to hone and absorb the know-how transferred from foreign investment companies, to have an ability to contribute to the development of the quality of our country's human resources.

Key words - Labor quality, labor expenditure, unemployment, infrastructure, provincial FDI, Vietnam

1. Introduction

The tendency of globalization is on the rise in recent times, which acts as a contributor to capital transfer among nations all over the world. It is proven that FDI plays such a pivotal role in the economic development of a nation due to many benefits. Recipient countries can receive know-how transfer, legal guidance, operational practices and other investments in terms of labor or material from their investors. At the same time, investing countries have a multitude of opportunities for market penetration and expansion, utilize the available labor force in the host country without seeking out in their own nation, make use of the geographical advantage in another country et cetera.

The value of FDI inflow in Vietnam was distributed in an unbalanced way. In 2019, FDI was reported to be allocated to mostly large cities such as Ho Chi Minh City and Ha Noi with USD 45.6 billion and USD 33.1 billion respectively while there was only USD 7.8 billion in Thai Nguyen. Although Ho Chi Minh City was affected by the Covid-19 during 4 months in 2021, which has a profound influence in the whole market in Vietnam because Ho Chi Minh City is a large manufacturing and economically strategic area, FDI inflows into this city still account for the majority in the total FDI percentage. Additionally, a lack of natural resources in a region can lead to an emergence of FDI inflows into other nearby region due to the advantages in geography. Another reason is the tendency of investors to develop FDI capital in substitute businesses in nearby areas, supporting the main business in the targeted province. Following Samsung's supporting industrial chain, Bac Ninh has attracted a significant IC manufacturing investment project from South Korea. Large cities, such as Ho Chi Minh City and Ha Noi, have the advantages of a high-quality labor market, good financial services, technology and logistics (there are Intel and Samsung), but they have limited land resources, so big cities are not necessarily strengths; the trend is to shift investment to neighboring cities. Long An, Tien Giang, Can Tho, Binh Duong, or Hai Phong, Bac Ninh, Bac Giang, Thai Nguyen... are the choices for foreign investors. However, there would be some provinces or cities which constitute more FDI inwards than the others. The divergence in FDI inflows among provinces or cities are caused by a multitude of factors such as the geographical characteristics, average wage of employees, infrastructure quality and so on. This phenomenon can affect the capital in total, posing many challenges for the Government or companies to develop their business. Due to the fast-paced development of technology which requires a large amount of financial resource, many countries, especially the developing ones, are making a lot of efforts to attract more and more foreign investors all over the world. Therefore, figuring out the outstanding factors that impact on the FDI inflows into provinces can help to explore the reasons then improve the positive factors, eliminate the negative factors to attract more FDI into a region.

Many studies have been conducted and at the national level, labor and infrastructure are often found to be statistically significant coefficients affecting FDI, so this study would like to assess at the provincial level, whether the above factors have an impact on the choice of investment location among provinces. In addition, many studies have selected the labor factor for analysis, but have not comprehensively considered all three indicators related to labor including: quality, cost, and unemployment rate. Furthermore, it is characteristic of Vietnam that provinces have large differences in factors related to labor and infrastructure, so this article focuses on those two factors (considering specific aspects of labor factors) to further analyze their impact on inter-provincial investment choices of MNEs in Vietnam.

2. Overview of provincial FDI in Vietnam

The 12 provinces of Vietnam that attracted the most FDI in the selected period include: Ha Noi, Ho Chi Minh, Dong Nai, Da Nang, Hai Phong, Vinh Phuc, Binh Duong, Ha Nam, Quang Ninh, Hai Duong, Lam Dong, Can Tho. FDI capital in 12 mentioned provinces has experienced a continuous increase during a twelve-year period presented in Figure 1. From 2009 to 2020, Ho Chi Minh has the highest average FDI registered capital with around 600.000 billion VND per year. Following that, Ha Noi reaches the second rank in FDI attractions during the given period with up to 825.000 billion VND in the year of

2020. Moreover, it is clear from the figure that Dong Nai, Binh Duong and Hai Phong are also the follow-up provinces in the top provinces cumulating the highest FDI capital through years with the FDI capital average about 805.000, 487.000 and 244.000 billion VND respectively. An intriguing point from the data is that in 2013, Dong Nai attracted up to 44.000.000 billion VND (approximately 191 million USD). This sharp growth in FDI inflows into Dong Nai was created due to a high rise in high-technological and manufacturing projects in the region. Foreign investors from Japan, South Korea, Holland and others became partners of Dong Nai, Viet Nam in about 2 big industrial projects and up to 20 supporting industry projects (GSO, 2021).

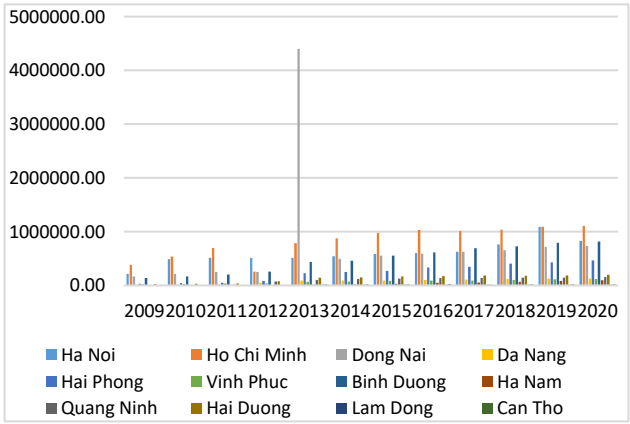

Figure 1. *FDI inflows into 12 outstanding provinces in Viet Nam from 2009-2020*

Source: authors complied from GSO data

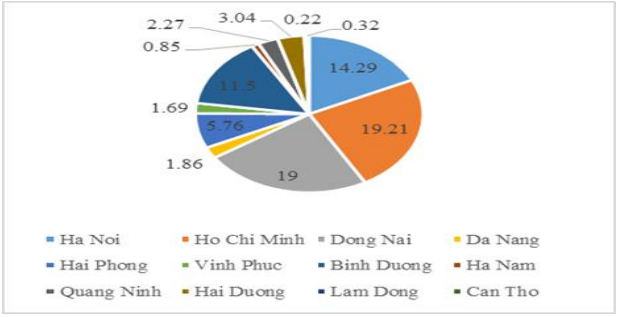

Figure 2. *Percentage of FDI in provinces and cities in Vietnam from 2009-2020*

Source: authors complied from GSO data

Figure 2 illustrates percentage of FDI in provinces and cities in Vietnam from 2009-2020, in which, Ho Chi Minh holds the lion share in the total FDI inflows proportion between 2009 and 2020 with up to 19.23%. The second share-holder position of FDI inwards 12 outstanding regions in Vietnam belongs to Dong Nai with 19.01%; meanwhile, Hai Phong accounts for approximately 14.3% in the total FDI percentage. Quang Ninh is also a potential FDI destination in foreign investors' mind due to its convenient geographical location and good infrastructure system providing many advantages for foreign investors to take into account in terms of proceeding cutting-edge industrial and manufactoring industries. Other provinces maintain the number of FDI capital not below 9.000 billion VND on average. From the begining, Ha Nam, Lam Dong and Can Tho had only around 3.000 billion VND with small number of FDI projects; however, the figure has increased up to 96.000 billion VND in Ha Nam and around 11.000 and 17.000 billion VND in Lam Dong and Can Tho in 2020 respectively.

3. Literature Review

In terms of labor quality, Kang and Lee [1] have included Labor Quality in the study name "The determinants of location choice of South Korean FDI in China, Japan and the world economy". The authors collect data during a forty-year period starting from 1988 to 2002 in 26 areas in China by using unique and extensive firm-level data from Korean enterprises. Following that, labor quality is estimated by the number of high schools. The outcome shows that there is a positive and significant relationship between the high school variable and FDI decisions. This leads to a conclusion that FDI inwards China invested by South Korean investors are positively affected by the quality of labor because they would prefer the region where many knowledgeable employees is created. Another study made in the region of China is also established by Cheung and Ping [2]. However, these authors only focus on three macro-regions of China based on two time periods: 1984-92 and 1993-2007. A pooled ordinary least squares model (POLS) is implemented using a panel dataset collected on a provincial scale. The outcome indicates that if there are more educated people in a region, more FDI inflows would be attracted. Additionally, a previous investigation in different provinces in the country of China made by Broadman and Sun [3] also conclude that the level literacy among adults has a small positive influence on FDI destinations. By the contrast, Cheng and Kwan [4] figure out the negative correlation between the labor quality and FDI inflows from 1984 to 1995. In this literature, the independent variables are wage, per capita income, infrastructure, policies, and labor quality. More specifically, labor quality is estimated by university education, secondary education.

Regarding Labor Expenditure, Coughlin and Segev [5] conducted research into FDI in China based on a spatial economic aspect in order to have an understanding about the geographic patterns of FDI location in the country of China. The result shows that wage tend to be decreased rather than being raised to attract more FDI because there is a negative correlation between two variables. Another study confirms this outcome is "The determinants of location choice of South Korean FDI in China from Japan and the world economy" by Kang and Lee [1]. By implementing extensive and unique data on a firm level for South Korean foreign affiliates in China from 1988 to 2002 in 26 regions, authors concluded that higher average wage acts as a deterrent to FDI attractions when other variables remains unchanged. This negative correlation is also figured out in the study of Cheung and Ping [2] in different provinces in China by applying pooled ordinary leases squares model. In Vietnam, Anwar and Nguyen [6] conducted research about foreign direct investment and economic growth of 63 provinces in Vietnam between 1996 and 2005. More specifically, labor cost is measured by the monthly average wage of employees in each province and city. The negative coefficient of labor cost is significant at a 1% level, which suggests that a rise in the average wage in Vietnam can contribute to a reduction in FDI attractions into inland regions. This result is in line with study

has been established by Nguyen Thi Ngoc Anh [7].

Regarding the unemployment rate, Fallon and Cook [8] examined the main determinants of FDI destinations by econometric data collected in five UK regions which are the South East, The North West, the West Midlands, Scotland and Wales. Following that, among other factors, the coefficient of unemployment rate is the most significant in terms for Scotland and North West. Craigwell [9] has figured out the same relationship when author studied about FDI and employment rate in the English and Dutch-Speaking Caribbean. Data in this article was collected in 20 English- and Dutch-speaking Caribbean countries. The result shows that there is a strong linkage between unemployment and FDI for all given countries apart from Saint Kitts and Nevis, Suriname, indicating the lower unemployment rate is, more FDI inflows would be attracted.

There have been a multitude of studies conducted to examine the correlation between FDI inflows into a region and the quality of infrastructure there. One of the most outstanding articles is created by Mat and Harun [10]. The goal of this research is to look at the influence of infrastructure in affecting FDI inflows to Malaysia from 1970 to 2010 utilizing time series analysis techniques that deal with non-stationary. Infrastructures, as well as other FDI variables including market size, trade openness, and human capital, are studied to see how they affect FDI inflows. It was concluded that combined with other factors, infrastructure affects FDI inflows to Malaysia in a positive way. This positive correlation is also examined and confirmed in many other studies such as the study about determinants affect Korean enterprises in making decisions to invest in China by [1] or the research into three-macro regions in China by [2]. The coefficient for infrastructure network is positive and significant, supporting the hypothesis that having a better infrastructure will attract foreign affiliates. Sánchez-Robles and Bengoa Calvo [11] examine the interplay among FDI, economic freedom and economic growth by implementing panel data analysis collected in 18 Latin American countries from 1970 to 1999. Authors utilized the physical units of railways as public investment into the quality of infrastructure. The outcome then shows that there is a positive relationship between this variable and FDI with a small significance level. Broadman and Sun [3] also show that a 1% incline in infrastructure density is associated with a 0.46% increase in provincial FDI accumulation with the infrastructure calculated by the sum of the length of rails in operations, the navigable inland waterways and the constructed highways.

4. Model, data and estimation methods

4.1. Model specification

With the aim of focusing analyze the effects of labor and infrastructure determinants on FDI inflows into Vietnam in the case of 12 outstanding provinces and cities from 2009 to 2020, this paper based on previous studies such as Mat and Harun [10], and Strat, Davidescu, and Paul [12] to propose the model as follows:

$$FDI_i = \beta_0 + \beta_1 LBQual_i + \beta_2 LBExp_i + \beta_3 Unem_i + \beta_4 Infras_i + \varepsilon \quad (1)$$

Where:

FDI_i: FDI registered capitals in a region in year i.

$LBQual_i$: Labor quality in a region in year i. This variable is predicted to have positive effects on FDI inflows into provinces in Vietnam because when the quality of labor is good, MNEs save time and money to train workers.

$LBExp_i$: Labor expenditure in a region in year i. Labor expenditure is predicted to have a negative impact on FDI attraction because an increase in labor costs will adversely affect the profitability of MNEs.

$Unem_i$: Unemployment rate in a region in year i. The unemployment rate is predicted to have a negative impact on attracting FDI to Vietnam's provinces because the increase in the employment rate of workers implies that the workers there meet the requirements of employers, so when MNEs investing in these provinces will reduce the cost of retraining workers

$Infras_i$: Infrastructure quality in a region in year i. Infrastructure is expected to have a positive impact on FDI attraction, as good infrastructure will make transactions, transportation, and logistics of MNEs more convenient, reducing time and costs.

ε: Error term, the error in predicting the value of y, given the value of x and within homoscedasticity σ.

The model is then adjusted to log-log as follows:

$$\ln FDI_i = \beta_0 + \beta_1 \ln(LBQual_i) + \beta_2 \ln(LBExp_i) + \beta_3 \ln(Unem_i) + \beta_4 \ln(Infras_i) + \varepsilon \quad (2)$$

4.2. Data specification

The data used in this study is collected annually from GSO reports for the period 2009-2020. In general, there are 144 variables collected and analyzed. The data is collected in 12 outstanding provinces in Vietnam namely Binh Duong, Can Tho, Ha Nam, Ha Noi, Hai Duong, Hai Phong, Ho Chi Minh, Lam Dong, Quang Ninh, Vinh Phuc, Da Nang and Dong Nai. Labor quality is estimated by the percentage of trained employed workers at 15 years of age and above. Labor expenditure is calculated by using the average income of labor trained employed workers at 15 years of age and above. The unemployment is measured by the unemployment rate in the total labor in the working age. Infrastructure is estimated by the volume of freight by the road. Table 1 provides an overview of the data and predicts the sign of the impact of the independent variables on the dependent variable.

Table 1. *Descriptive Statistics*

Variable	Obs	Expected Sign	Mean	Std.Dev.	Min	Max
lnFDI	144		282898.1	456337	1707	4400751
LnLBQual	144	+	24.5	9.5	11.5	48.5
LnLBExp	144	-	4808	1604.2	2112	8619
LnUem	144	-	2.6	1.3	0.1	9.4
LnInfras	144	+	34556.3	29263.7	2538.1	130001.7

Sources: calculated by the authors

The correlation matrix between the variables used in the model is presented in Table 2. The model is likely to appear multicollinearity when there is a pairs of explanatory variables with the correlation coefficient of 0.61 [13].

Table 2. *Pearson Pair-wise Correlation Matrix*

	LnFDI	LnLBQual	LnLBExp	LnUem	LnInfras
LnFDI	1				
LnLBQual	0.4772	1			
LnLBExp	0.6427	0.5859	1		
LnUnem	0.2241	0.4336	0.0511	1	
LnInfras	0.8858	0.6134	0.5681	0.1967	1

Sources: calculated by the authors

The Variance Inflation Factor (VIF) method is further applied to see if the model is affected by multicollinearity. The results of applying VIF will be presented in the next section of estimation results.

4.3. Estimation methods

Among the regression methods commonly used for estimating panel data, the method of pooled least squares regression (Pooled OLS) is the most popular method because it often gives efficient estimation results. Therefore, the Pooled OLS method is applied to estimate equations (2). Although effective, OLS is also often biased due to the nature of the model. Therefore, the fixed effect (FE) and random effect (RE) estimation methods are used next for the above equations because these two methods provide more consistent results than Pooled OLS [14]. The estimated results from OLS are still presented as a basis for comparison.

5. Results and discussions

Table 3 presents the results of estimating equations (2) using Pooled OLS, FE and RE methods shown in columns (I), (II) and (III), respectively. To check whether the FE or RE method is more suitable, this study uses the Hausman test. The Hausman test results conclude that the estimate by RE is more suitable than the FE (p-value of Hausman test = 0.052), because it gives a more efficient estimate than the estimate by FE [14]. Therefore, this study mainly discusses the estimation results from RE based on comparing the results with pooled OLS.

Table 3. *Estimation results of FDI model for Vietnamese provinces*

Variables	Pool OLS (I)		FEM (II)		REM (III)	
	Coef.	t	Coef.	t	Coef.	t
_cons	-13.50***	-6.67	-7.80***	-5.72	-10.81*	-8.67
LnLBQual	-1.42***	7.86	-0.58	-1.05	-0.72***	-1.91
LnLBExp	1.61***	4.89	2.059***	5.86	1.47***	6.43
LnUnem	0.55***	20.31	0.285**	2.42	0.33***	2.79
LnInfras	1.53***	-9.97	0.35	1.39	1.18***	7.91
R-squared	0.86	-	0.76	-	0.85	-

Sources: calculated by the authors

*Note: *** p<0.01, ** p<0.05, * p<0.1*

The result shows that all variables has a 1% significance level and R-squared is 0.85, which indicates that 85% of a dependent variable is explained by the independent variable in the model. All variables namely LBQual, LBExp, Unem, Infras make a significant contribution to the FDI inflows into 12 outstanding provinces in Vietnam. The quality of labor has a negative impact on FDI decisions made by foreign investors, while other determinants pose a positive influence.

In terms of Labor Quality which is estimated by the percentage of trained employed workers at 15 years of age and above by province, a 1% increase in the percentage of LBQual would result in a 0.72 decrease in the percentage of FDI when all other variables remain unchanged. This negative correlation between the Labor Quality and FDI inflows is analyzed a 1% significance level. Unexpected results may be due to the following reasons: most of FDI inflows into Vietnam is still invested in industries such as textile, food processing, automobile mechanic in recent times. These industries are regarded as labor-intensive manufacturing industries rather than occupations requiring high-expertise labor. Labor quality is not particularly crucial in these industries, suggesting that lumping FDI in different industries may have the effect of confounding their differential underlying determinants [4]. Moreover, few foreign investors allocate capital into Vietnamese enterprises doing business in high-tech industry because modern industrial companies in Vietnam only account for a small percentage. Otherwise, Vietnamese industrial companies have not yet produced cutting-edge products, scientific and technological outputs. Therefore, most of FDI inflows into Vietnam are attracted by the low proportion in the number of trained labor because the target industry of foreign investors does not require high-expertise employees in the given period. Following that, investing companies can reduce costs due to the labor source which is both low-cost and rich at the same time. As a result, fewer trained labor in investigated provinces would attract more FDI into such regions.

Regarding Labor Expenditure, the estimated results are not as predicted when indicating that labor expenditure has a positive impact on attracting FDI into the provinces. When LBExp increases 1%, FDI would increase about 1.3% in case that other variables remain unchanged. This unexpected result may be because when investing in Vietnam's provinces, MNEs mainly focus on labor-intensive industries, thus creating competition in attracting labor between regions. Therefore, the province that pays high wages, labor will be concentrated in that province to work, and create an available labor force in that province and that contributes to attracting FDI. Besides that, generally, labor with higher wage is assumed to have a higher expertise of experience, skills and knowledge. Following that, higher salary can act as a signal to a higher productivity among employees. This factor can help to attract more FDI inflows into each region as there would be more opportunities for FDI projects to develop in the long term. Employees with high productivity, a lot of experience and knowledge would prefer an environment where they can be offered a higher salary to settle and thrive in the long term. Moreover, most of education infrastructures, facilities, reputable universities or colleges are built in big and central cities. Therefore, a large number of excellent employees is expected to be created, which elevates the level of competition and enterprises as well as investors would tend to offer a higher salary to attract more good labors to their business. Investors consider high salary as signaling higher productivity [15]. Higher wage rate has been confirmed to attract more FDI inflows in the study of Botrić and Škuflić [16]. According to Giannias, Liargovas, and Alexandrovich [17], a difference in wage reflects a difference in labor quality which plays an important role in attracting foreign investors,

especially in high-tech industries. Moreover, according to the industrialization and modernization strategy in Vietnam for the upcoming years, foreign investors would consider high-expertise labor source, especially in technology and science, as a main factor in making long-term commitment to a long-run partnership. It could be argued that foreign investors are willing to increase the existing nominal wage if they have relatively skilled and productive workers [16]. Thus, investing companies and recipient ones can both seek for outstanding staffs or high-productivity employees to maintain and develop the FDI projects in the future. Therefore, regions with a high average wage could become more attractive in cumulating FDI capital compared to the others.

When it comes to the correlation between the Unemployment rate and FDI inwards Vietnam, the coefficient shows that if Unemployment rate increases 1%, FDI inflows will increase approximately 0.36% when other variables remain unchanged at a 1% statistical significance. The results are not as expected when showing a positive relationship between unemployment and FDI attraction. The results imply that a high unemployment rate in a region reflects a large number of available employees. Investing enterprises can explore the rich labor force with better cost and reach the target number of needed employees. In the foreign investor's respective, the rising unemployment rate means there is a large number of people who are willing to work and find a job. Moreover, the unemployed people have an inclination not to take salary into careful consideration because having an occupation is being their priority. Therefore, investors can regard this factor as an advantage to attract more labors required for doing business without allocating a large budget allocated for seeking and hiring workers. This result is in line with previous studies such as Strat, et al. [12] and Botrić and Škuflić [16] and Craigwell [9].

Regarding Infrastructure which is estimated by the volume of freight by road by province, there is a positive correlation between FDI and the quality of infrastructure. A 1% increase in the volume of goods transported by road is associated with a 1.59% increase in provincial FDI accumulation when other variables remain unchanged with a 1% significance level. The result confirms the importance of infrastructure in making policies to improve the systems of infrastructure to attract more FDI inflows as recommended in [3], [11], [1], [2], and [6]. Our results on infrastructure reinforce the findings of previous studies even though different factors were used for infrastructure such as the average number of telephone, the volume of rail freight, the number of transportation routes et cetera, most of the results reflect the positive relationship between infrastructure and FDI attractions into a region in particular or a country in general. This study focuses on the freight shipped by road per year by province because volume of road transportation accounts for the largest percentage in terms of domestic transportation in Vietnam. Following that, if the quality of road transport is improved, the recipient country would have more opportunities to receive investments from foreign investors. A good regional road transport system will give access to national and regional product markets, as well as reducing cost by providing access to labor and other inputs [18]. Foreign investors would not have to allocate a large budget to repair, rebuild or renovate with a view to making the infrastructure system in the host country compatible with the FDI projects in the long run. An availability of a good infrastructure system such as road transportation can contribute into transporting goods, creating flexible distribution channel as well as constructing new factories. This can help them to reduce the consumption of budget and have more opportunities to invest in other essential factors such as labor training, know-how transfer or manufacturing and innovation.

Table 4. *Test of Variance Inflation Factor (VIF)*

Variable	VIF	1/VIF
LnLBQual	2.36	0.423607
LnLBExp	1.83	0.546684
LnUem	1.79	0.557377
LnInfras	1.33	0.749201
Mean VIF	**1.83**	

Sources: calculated by the authors

The test results by the method of variance inflation factor (VIF) for the variables used in equation (2) are presented in Table 4. From the test results, it can be concluded that the estimated results of the model are not affected by multicollinearity.

6. Conclusion and policy implications

The estimated results have confirmed the importance of labor and infrastructure in attracting FDI to the provinces of Vietnam, in which besides infrastructure, the research results emphasize the importance of available labor resources in attracting FDI. Through the labor indicator, the research results also show that our country's FDI still focuses a lot on labor-intensive industries but has not focused on technology-intensive industries requiring high quality of labor.

Our country benefits from a youthful workforce, and the country's population is approaching its golden age. As a result, this is one of the most attractive aspects for attracting FDI. In recent times, FDI inflows into Vietnam met an upward trend thanks to the rich and low-cost labor source. However, the cost should be taken into account with the productivity among employees because higher productivity attracts more FDI in the long term. Among different variables, labor productivity is a good indicator of the potential environment for foreign investors to invest in, which can help to boost the outputs of a firm. The labor availability aside, enterprises in Vietnam should also pay more attention to improve the labor productivity. The main cause is that high quality outputs are being in need, requiring a large of productive employees to proceed. Therefore, training institutions and schools should apply suitable curriculum in educating the future human capitals, which share the most contribution in FDI attraction strategy. Moreover, there is an imbalance among the labor distribution in provinces since most of employees locate in big and reputable regions. Specifically, most of workers earn their living in Ho Chi Minh, Hai Phong or Binh Duong. Therefore, more training schools should be erected in different provinces to educate the labor source, especially the ones settling in rural areas. Following that,

there would be a rich human capital across the country and the equilibrium in labor distribution can be reached.

Although the high unemployment is commonly considered to be a disadvantage of a nation, the above result shows that higher the unemployment rate is, more FDI inflows would be attracted into a region. Increased unemployment leads to higher inflows of foreign direct investment, demonstrating that foreign investors seek places where labor availability is not a concern. As a result, the Government of these countries should concentrate their efforts on developing policies to attract international investors, as their countries have significant potential in this area. The Authority also utilizes the available labor force to enhance their image to attract more FDI registered capital with a commitment that a rich labor force can be adapted immediately. Moreover, after the Covid-19 pandemic, a high unemployment rate is a global concern that most of developing countries are confronting. Therefore, instead of regarding this factor as a problem, the Government can put more efforts in educating and training to converting the labor cost into a high-quality and skilled human capital. Additionally, in recent times, there are many instable tendencies in global economic environment; therefore, every employee should acquire a respiratory of knowledge and accumulate agility skills to adapt and become more flexible. Following that, the unemployment rate would not experience an upward trend, which unfortunately hinder the overall development of the national economy. However, this finding of unemployment rate has positive effects on FDI should be interpreted with caution because the relationship may alter if unemployment rises too high, as foreign investors will be hesitant to locate new investments or expand existing ones in a country where there are significant symptoms of macroeconomic instability.

Infrastructure is critical to every country's socioeconomic development, and it is especially critical in emerging countries for enhancing the business environment and generating the push for rapid economic expansion. The regression model's results also clearly indicate the impact of infrastructure on foreign companies' direct investment decisions. Vietnam has consistently prioritized infrastructure development to satisfy socioeconomic development goals, resulting in considerable improvements in infrastructure quantity and quality. Infrastructure development will become more standard and effective as a result of institutional reform in management, capital mobilization, and finance. Furthermore, the need of building a practical infrastructure system that connects the regions, as well as selecting and directing FDI projects with characteristics appropriate for each region, cannot be overstated. Due to greater infrastructure connections, FDI projects that require cheap resources may be spread out more equitably throughout locations. Because of the existing conditions, transportation of goods between regions has become problematic. For example, the quality of road and rail transportation still confronts many difficulties due to the lack of state-of-the-art amenities or poor and inconsistent network. Therefore, investment projects in the manufacture of consumer goods for the domestic market will concentrate production in one location rather than dispersing it across multiple locations. To facilitate the improved infrastructure, the Government should allocate more financial resource to infrastructure construction, and invest in repairing the existing low quality facilities. The Government must pay attention to policies for creating communication networks in addition to improving basic infrastructure. Delays in communication infrastructure will cost a lot of business possibilities in today's world of information explosion. What is more, the Government also needs management strategies to help speed up the completion of projects and avoid having to demolish or postpone projects owing to investment concerns.

REFERENCES

[1] S. J. Kang and H. S. Lee, "The determinants of location choice of South Korean FDI in China", *Japan and the world economy*, vol. 19, 2007, pp. 441-460.

[2] K.-y. Cheung and L. Ping, "Spillover effects of FDI on innovation in China: Evidence from the provincial data", *China economic review*, vol. 15, 2004, pp. 25-44.

[3] H. G. Broadman and X. Sun, *The distribution of foreign direct investment in China*: World Bank Publications, 1997.

[4] L. K. Cheng and Y. K. Kwan, "What are the determinants of location of foreign direct investment? The Chinese experience", *Journal of International Economics*, vol. 51, 2000, pp. 379-400.

[5] C. C. Coughlin and E. Segev, "Location determinants of new foreign-owned manufacturing plants", *Journal of regional Science*, vol. 40, 2000, pp. 323-351.

[6] S. Anwar and L. P. Nguyen, "Foreign direct investment and economic growth in Vietnam", *Asia Pacific Business Review*, vol. 16, 2010, pp. 183-202.

[7] N. T. N. Anh, "Regional determinants of FDI location in Vietnam", *Journal of Economic Development*, vol. 18, 2016, pp. 19-37.

[8] G. Fallon and M. Cook, "Exploring the regional distribution of inbound foreign direct investment in the UK in theory and practice: Evidence from a five-region study", *Regional studies*, vol. 44, 2010, pp. 337-353.

[9] R. Craigwell, "Foreign direct investment and employment in the English and Dutch-speaking Caribbean", *ILO Subregional Office for the Caribbean*, 2006.

[10] S. H. C. Mat and M. Harun, "The impact of infrastructure on foreign direct investment: The case of Malaysia", *Procedia-Social and Behavioral Sciences*, vol. 65, 2012, pp. 205-211.

[11] B. Sanchez-Robles and M. Bengoa-Calvo, "Foreign Direct Investment as a Source of Endogenous Growth", *Universidad de Cantabria, Economics Working Paper*, 2003.

[12] V. A. Strat, A. Davidescu, and A. M. Paul, "FDI and the unemployment-a causality analysis for the latest EU members", *Procedia economics and finance*, vol. 23, 2015, pp. 635-643.

[13] J. M. Wooldridge, *Introductory Econometrics: A Modern Approach*. the United States of America: South-Western Cengage Learning, 2009.

[14] J. M. Wooldridge, *Econometric Analysis of Cross Section and Panel Data*: MIT Press, 2002.

[15] H. H. Hoang and M. Goujon, "Determinants of foreign direct investment in Vietnamese provinces: a spatial econometric analysis", *Post-Communist Economies*, vol. 26, 2014, pp. 103-121.

[16] V. Botrić and L. Škuflić, "Main determinants of foreign direct investment in the southeast European countries", *Transition Studies Review*, vol. 13, 2006, pp. 359-377.

[17] D. A. Giannias, P. Liargovas, and C. Y. Alexandrovich, "Economic growth and the environment: The European Union case", *The Journal of Developing Areas*, vol.37, 2003, pp. 1-11.

[18] S. Hill and M. Munday, "The UK regional distribution of foreign direct investment: analysis and determinants", *Regional studies*, vol. 26, 1992, pp. 535-544.