# Research on the Factors Influencing the Attraction of Foreign Direct Investment in Vietnam's Southeastern Economic Zone

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## Abstract

Today, in the context of globalization, attracting foreign direct investment has gradually become an important factor in promoting economic development. Attracting FDI is a part of the economic development process of developing countries, developing countries and underdeveloped countries. The activities of attracting FDI undertake important tasks, such as compensating for the shortage of foreign exchange, increasing technical capacity, creating employment opportunities to increase workers' income, solving social problems, etc. Although the basis of attracting FDI capital is not a problem, in fact, the distribution of FDI among countries and regions of each country is not the same. National characteristics, policy mechanisms, international environment and the characteristics of each region and place are important factors to attract and distribute FDI capital. As a country with advantages in attracting foreign direct investment and a destination for international investors, Vietnam has gradually established its important position in the world, especially in Southeast Asia. In the territory of Vietnam, the Southeast Economic Zone has many outstanding advantages compared with other economic zones. The Southeast Economic Zone has indeed become a highlight in attracting FDI capital. In order to understand and study the activities of attracting FDI capital in Southeast Vietnam Economic Zone, this paper analyzes the current situation of attracting FDI capital in the economic zone from 2010 to 2019, through the following aspects: the scale and speed of attracting FDI, the investment structure of FDI capital and the capital market of FDI in the economic zone At the same time, it analyzes the special elements of Southeast Economic Zone in attracting FDI. On this basis, this paper evaluates the advantages, disadvantages, opportunities and challenges of the economic zone in the activities of attracting FDI capital. In addition, this paper uses analytical theory to determine the influencing factors of FDI in Southeast Vietnam, including market size, human resource quality, trade policy development direction, regional economic development status, regional trade openness and technological infrastructure development level. At the same time, this paper uses the quantitative analysis method to analyze the relevant data of variables in the time series from 2000 to 2019. The results show that: the quality of human resources, the direction of trade policy development and regional economic development have an impact on the activities of attracting foreign investment in the eastern region. Finally, through the analysis results, this paper puts forward some solutions to promote the strong development of FDI in Southeast Economic Zone.

## Keywords

Vietnam; Economic Zone; Foreign Direct Investment; FDI; Solutions.

## 1. A Research Model of the Factors Influencing the Attraction of Foreign Investment in Southeastern China

### 1.1. Research Model

On the basis of summarizing the theoretical basis of the thesis, and selecting factors suitable for the actual research of the thesis, this paper proposes the following research model:
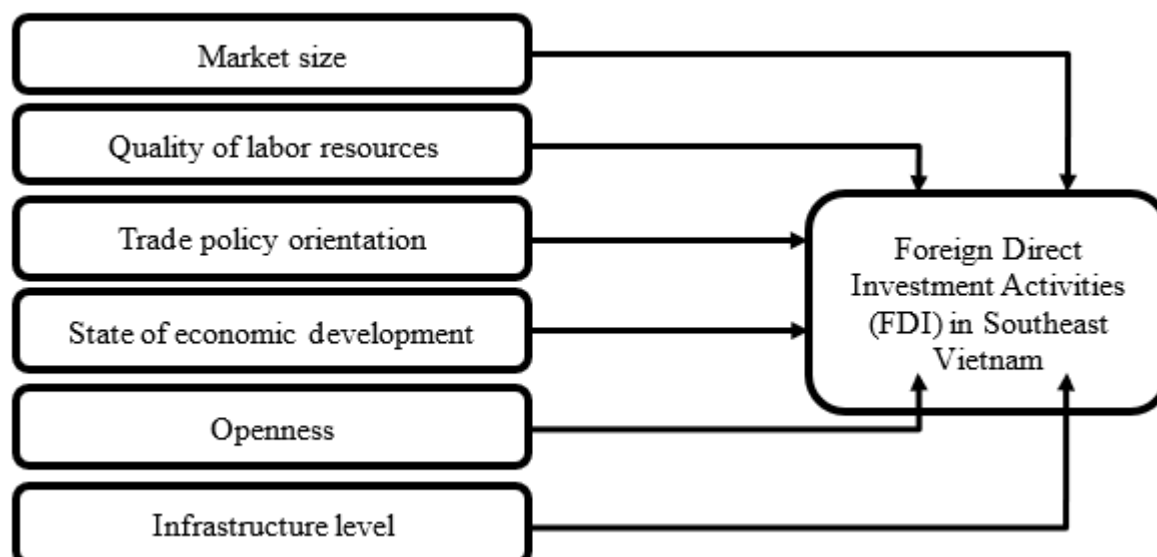


**Figure 1.** Research model of influencing factors in attracting FDI capital activities in the Southeast

In the process of globalization, there are many different factors that will affect the changes in attracting foreign investment activities. Traditional factors such as geographic location and available resources have declined in importance. As technological infrastructure and high quality of resources become more and more important. Therefore, the model should be designed on the basis of inheriting the knowledge of the predecessors. This article puts forward the six factors that influence the Southeastern Economic Zone to attract foreign direct investment activities including: (1) market size; (2) human resource quality; (3) trade policy orientation (4) The state of economic development; (5) The openness of trade; (6) The level of technical infrastructure.

### 1.2. Factors Influencing the Attraction of Foreign Investment in the Southeast

#### 1.2.1. Market Size

Market size refers to the number of buyers in a market, the number of potential customers, and the number of people selling products or services. In order to find new markets, foreign direct investment companies usually find that there are some problems in the host country's market, such as: 1. Is the market large and attractive enough? 2. Should you invest in products to develop this market? 3. Should new products be developed in this market? It can be said that a country with a large market will have a relatively large capacity and potential to represent the country's commodity consumption, thus attracting many foreign investors who are looking for a market. Demirhan, E. and Masca, M. (2008) proposed that the market size of the host country had a positive influence on FDI activities in 38 developing countries from 2000 to 2004. At the same time, Jayasekara SD (2014) studied the determinants of foreign direct investment in Sri Lanka, India, Bangladesh and Pakistan from 1975 to 2012. It also shows that the market size of

the host country has a positive impact on attracting foreign direct investment activities. . In addition, there are many studies that have reached the same conclusions as the above-mentioned authors. At the same time, one thing that most studies have in common is that they choose to use per capita GDP to represent the market size. This shows that when per capita income increases, people's demand will increase, and the consumer market will also expand. In this study, this article will also select the per capita GDP of the Southeast Economic Zone as the representative of market scale factors, and hope that market scale factors will have a positive impact on attracting foreign direct investment capital activities.

*Hypothesis 01 (GT01): The market scale factor has a positive impact on attracting FDI capital activities in the Southeastern* Economic *Zone of Vietnam.*

### 1.2.2. Human Resource Quality

Human resources play a key role in the success or failure of an organization. Human resources provide labor for the society. It is a resource for social and economic development and one of the most important social factors in attracting foreign direct investment activities. Human resources usually think in terms of quantity and quality. The number of manpower indicators will be represented by indicators of population size and growth rate. The larger the population size and the higher the population growth rate, the greater the scale and speed of human resource growth. However, in the past 15 years, due to the relatively large number of workers of suitable working age, the greater the labor resources, the investment enterprises have the right to choose labor according to their own requirements, thus producing labor quality indicators. The quality of human resources is considered in terms of health, cultural level, professional level, and quality. For foreign direct investment enterprises, investors will choose locations with qualified human resources to invest, especially where the quality of local labor is a competitive advantage for investors in high-tech or the use of many modern technologies. Nguyen Thi Giap (2020) pointed out that the quality of human resources has a positive impact on Vietnam's FDI capital activities. When the quality of human resources increases by 1%, Vietnam will attract FDI. Capital activities will also increase to 15.35% units. Youssef (2001), Ana and Aurona (2006) concluded that the relationship between the quality of a country's human resources and attracting FDI activities is positively correlated. Therefore, this article chooses the number of professionally trained workers in southeastern Vietnam as a variable. It is expected that the improvement of the quality of human resources will lead to an increase in attracting foreign direct investment capital activities.

Hypothesis *02 (GT02): Human resource quality factors have a positive impact on attracting FDI capital activities in the Southeastern Economic Zone of Vietnam.*

### 1.2.3. Trade Policy Orientation

Trade policy orientation is understood as a system of views, goals, principles, tools, and appropriate measures used by the country. Each country uses trade policy orientation to adjust international trade and investment activities within a certain period of time to realize the country's economic and social development strategy The goal. Its task is to adjust international trade activities in a direction that is conducive to the country's socio-economic development. Trade policy orientation is also one of the factors that affect the attraction of foreign direct investment activities, especially for those foreign direct investment enterprises that seek business efficiency as their investment goal. Foreign direct investment enterprises can make full use of the preferential trade policies between the host country and the development resource market, and export their goods to the required market through the host country, with the goal of maximizing profits. Zhang Mingxing, Zhang Lixia, Tong Shenghong, Xie Tianyu (2015) studied and tested the influencing factors of Chengdu's foreign direct capital activities, and determined that the trade policy orientation had a negative impact on Chengdu's FDI activities. In this study, the author chose RMB and U.S. dollar. The exchange rate between the two

countries serves as a representative of the guiding factors of trade policy. In simulating the method of the predecessors, this article will choose the exchange rate between the Vietnamese Dong and the U.S. dollar to represent the trade policy-oriented factors, and hope that the trade policy-oriented factors will lead to an increase in the amount of foreign direct investment attracted in the Southeast.

*Hypothesis 03 (GT03):* Trade *policy orientation factors have an adverse effect on attracting FDI capital activities in Vietnam's Southeastern Economic Zone.*

### 1.2.4. State of Economic Development

The state of economic development also effectively affects the prospects for attracting domestic and foreign investment capital. The sustainable economic growth rate and high growth rate will prove that the economic entities in the economy are operating effectively, thereby increasing the economy's accumulation capacity, and therefore the scale of investment capital will also increase. On the other hand, the prospect of high economic growth will also be a signal to attract foreign investment. The high growth rate indicates that the country's capital utilization efficiency is very high, and FDI capital inflows will flow from low efficiency to high efficiency. In addition, the rapid economic growth also shows that the country has created a good investment environment. At the same time, the high economic growth rate means that purchasing power has also increased, thereby boosting commodity consumption and attracting more investors. Nunnenkamp, P. (2002) pointed out that the economic growth rate has a positive effect on attracting foreign direct investment activities in the research on the determinants of foreign direct investment activities in developing countries under the background of globalization. Zhang Mingxing et al. (2015) also reached the same conclusion. Therefore, this article chooses the GDP growth rate of Southeastern China as the variable of the economic development status factors, and expects that the economic development status factors will have a positive impact on attracting FDI capital activities.

Hypothesis *04 (GT04): The economic development status factors have a positive impact on the attraction of FDI capital activities in Vietnam's Southeastern Economic Zone.*

### 1.2.5. Economic Openness

In an investment environment with a highly open economy, foreign investors can better understand the cultural, socio-economic and political characteristics of the investing country. The nature of foreign direct investment activities is the result of an open economy, and the degree of economic openness reflected in foreign economic development activities is international trade activities. Zhang Mingxing et al. (2015) selected the ratio of Chengdu's trade value to GDP as a variable representing the degree of economic openness, so as to evaluate the degree of economic openness factors affecting Chengdu's FDI activities. Nguyen Thi Giang (Nguyen Thi Giang-2020) also used a similar method to conduct research, and the results showed that economic openness factors have had a positive impact on attracting foreign direct investment activities. This article will also adopt a similar method to evaluate the impact of attracting FDI capital activities by using the ratio of trade value to GDP in the Southeast region. It is expected that as the economy opens up, the amount of foreign direct investment capital will also increase.

Hypothesis *05 (GT05): The degree of economic openness has a positive impact on attracting FDI capital activities in the Southeastern Economic Zone of Vietnam.*

### 1.2.6. Infrastructure Level

The infrastructure system is one of the important factors in attracting foreign direct investment activities, and it is also a factor that promotes the rapid development of foreign direct investment activities, especially the transportation infrastructure system. The level of this factor also reflects the level of economic development and creates a good environment for investment activities. Infrastructure has a decisive influence on the efficiency of production and

operation and the speed of capital turnover. This is the top priority for investors before making an investment decision. Areas with good infrastructure will help reduce production costs for investors. Underdeveloped infrastructure will affect investment costs and create obstacles to investment activities. Jayasekara S.D (2014) pointed out that technological infrastructure factors will affect the activities of attracting FDI. For infrastructure system factors, this article will select the total investment in social development in the Southeast as the representative value of the variable.

Hypothesis *06 (GT06): The level of infrastructure has a positive impact on the Southeast Economic Zone's attraction of foreign direct investment capital activities.*

## 2. Quantitative Analysis of Factors Influencing Foreign Investment in the Southeastern Economic Zone

### 2.1. Data Sources

In the research framework of the thesis, this paper chooses the dependent variable is FDI in the southeast region, which is calculated from the total value of FDI in the region. For the independent variables, based on the above assumptions, this article selects variables such as market size, human resource quality, trade policy guidance, economic development status, economic openness, and technological infrastructure systems. Among them, the market size variable is calculated based on the per capita GDP; the human resource quality variable is measured by the proportion of trained workers aged 15 and above in the Southeast Economic Zone; the trade policy-oriented variable is the value when the Vietnamese dong is converted to the US dollar. The variable of economic development is calculated based on the growth value of GDP; the variable of regional openness is calculated based on the share of import and export value in the GDP of the southeast area; the variable of technological infrastructure system is Measured by the total investment in regional social development. This article uses data from the Vietnam General Administration of Statistics from 2000 to 2019 to analyze the influence of independent variables on dependent variables. (Appendix 01)

The research model is as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \in$$

among them:

Y: FDI variables in the southeast region; X1: market scale variables; X2: human resources quality variables; X3: trade policy-oriented variables; X4: economic development status variables; X5: regional openness variables; X6: technological infrastructure system variables

### 2.2. Research Methods

In order to test and determine the influencing factors of the investment decision of foreign investors to invest in the Southeastern Economic Zone, this article will conduct the following tests: 1. Verify the unit of the time series; 2. Use the OLS regression model.

#### 2.2.1. Time Series Unit

Most time series data are non-stationary, so before analysis, it is necessary to check the stationarity of the time series, and the stationarity of the time series determines the effect of the estimation method used. When the mean, variance, and covariance (at different delays) remain the same, no matter when the series is determined, the time series data is stationary. The stationarity of time series data is critical to the accuracy of the estimation method used. In order to test the stationarity of time series data, the most popular method used is ADF test (Augment Dickey Fuller) or DF test (Dickey Fuller).

### 2.2.2. OLS Model Regression Process

Through the OLS least square method, the linear regression analysis model is analyzed. This analysis method can be used to determine the influence of the independent variable on the dependent variable and test the hypothesis of the selected model.

### 2.2.3. Research Result

### 2.2.4. Descriptive Statistics

in order to evaluate the influencing factors of attracting foreign direct investment activities in Southeast Vietnam, this article uses quantitative methods to analyze seven variables, including the FDI amount variable (Y) in the Southeast region as the dependent variable; market size factor (X1), human resource quality factor (X2), trade policy orientation factors (X3), regional economic development status factors (X4), regional openness factors (X5), technological infrastructure system factors (X6) are independent variables. The time series data was collected by year from 2000 to 2019, and the variable data was collected from data sources from the National Bureau of Statistics of Vietnam and the World Bank. Descriptive statistical analysis aims to provide relevant research data. The statistical results show that the data of the research variables are collected within 20 years, the standard deviation value (Std.Dev) indicates that the variation degree of the variable X4 is greater than other variables, and the kurtosis index (Kurtosis) of the distribution is different. In the skewness index (Skewness) of all variables, the variable X1 is negative, indicating that they are skewed to the left, and the value of other variables is positive, indicating that the variable is skewed to the right. The Jarrque-Bera statistical method is used to test whether the variable has a normal distribution, and the probability value of the variable (Probability) is greater than 0.05, which indicates that the research variable has a normal distribution.

**Table 1.** Descriptive statistics results

|  | Y | X1 | X2 | X3 | X4 | X5 | X6 |
|---|---|---|---|---|---|---|---|
| **Mean** | 76.76289 | 3482.684 | 21.75895 | 18522.05 | 13.31735 | 366.6860 | 51125.01 |
| **Median** | 64.63900 | 3575.157 | 20.50900 | 17839.00 | 11.27250 | 356.3230 | 45197.03 |
| **Maximum** | 215.1580 | 6119.420 | 28.10000 | 23050.00 | 28.05100 | 466.9050 | 130666.2 |
| **Minimum** | 6.986000 | 631.8490 | 17.08500 | 14168.00 | 3.564000 | 270.4040 | 6576.041 |
| **Std.Dev.** | 59.01093 | 1935.034 | 3.644903 | 3101.083 | 7.187826 | 60.88564 | 38111.97 |
| **Skewness** | 0.683070 | -0.141094 | 0.550778 | 0.105873 | 0.958785 | 0.086749 | 0.578907 |
| **Kurtosis** | 2.621065 | 1.439531 | 1.930397 | 1.349579 | 3.009332 | 2.055107 | 2.263258 |
| **Jarque-Bera** | 1.674943 | 2.095579 | 1.964563 | 2.307270 | 3.064301 | 0.769103 | 1.569436 |
| **Probability** | 0.432804 | 0.350712 | 0.374456 | 0.315488 | 0.216070 | 0.680756 | 0.456248 |
| **Observations** | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Data source: Analyze data using Eview 10 software | | | | | | | |

### 2.2.5. Verify the Units of the Time Series

Nelson and Plosser (1982) believe that most time series are non-stationary in order I (0), so before analysis, it is necessary to check the stationarity of the time series. The stationarity of the time series determines the effectiveness of the estimation method used. If the time series is non-stationary, the assumptions of the OLS method cannot be satisfied. The results of the ADF test show that in the initial time series, the variables Y, X2, X4, and X5 are all stable in the first order difference; the variables X1, X3, X6 are all stable in the second order difference.

**Table 2.** ADF inspection results

| variable | ADF inspection | | | | | | in conclusion |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| | Original sequence | | First difference | | Second order difference | | |
| | t-Statistic | Prob | t-Statistic | Prob | t-Statistic | Prob | |
| **Y** | -1.862585 | 0.3413 | -4.364661** | 0.0039 | | | Order difference stationary |
| **X1** | -0.602631 | 0.8481 | -3.356060 | 0.0272 | -5.591651** | 0.0004 | Second-order difference stationary |
| **X2** | -0.043984 | 0.9427 | -4.835378** | 0.0014 | | | Order difference stationary |
| **X3** | -0.455320 | 0.8790 | -2.913423 | 0.0645 | -3.566141 | 0.0188 | |
| **X4** | -3.187808 | 0.0368 | -5.621850** | 0.0003 | | | Order difference stationary |
| **X5** | -1.584668 | 0.4706 | -4.927256** | 0.0011 | | | Order difference stationary |
| **X6** | 7.443542 | 1.0000 | -0.925169 | 0.7557 | -4.683412** | 0.0021 | Second-order difference stationary |
| Data source: Use Eview 10 software to analyze the data, (**) means that the statistical significance is 5% | | | | | | | |

### 2.2.6. OLS Regression Analysis

This paper uses Eview 10 software to use the general least square method to perform regression analysis on the model. The regression results of the model are shown in Table 3. The results of the OLS regression model indicated that the model explained the relationship between the variable Y and the variables X1, X2, X3, X4, X5, X6, and its statistical significance was 84% ($R^2$ = 0.839553). Among them, the determined variables X2, X3, X4 have statistical significance for variable Y (Prob are 0.0029, 0.0003, 0.0488, all less than 0.05), while the determined variables X1, X5, X6 have no statistical significance for variable DY (Prob is 0.056, respectively 0.1838, 0.1039, both greater than 0.05). At the same time, the analytical model equation is expressed as follows:

$$Y=303.10+0.03X_1+26.86X_2-0.05X_3+2.83X_4-0.43X_5+0.001X_6+\in$$

The results show that: First, when other variables remain unchanged, if the human resource quality factor is increased to 1 unit, the total FDI in the southeast region will increase to 26.86 units, which is in line with the hypothesis GT2; second, when other variables At the same time, if the trade policy orientation factor increases by 1 unit, the total FDI in the southeast region will decrease by 0.05 unit, which is consistent with the hypothesis GT3; third, with other variables unchanged, if the economic development status factor increases by 1 Units, then the total FDI in the Southeast region will increase by 2.83 units, which is consistent with the GT4 hypothesis.

**Table 3.** OLS regression analysis results

| Variable | Coefficient | Std.Error | t-Statistic | Prob. |
|---|---|---|---|---|
| X1 | 0.030999 | 0.014835 | 2.089620 | 0.0569 |
| X2 | 26.85825 | 7.334082 | 3.662114 | 0.0029 |
| X3 | -0.046561 | 0.009688 | -4.806122 | 0.0003 |
| X4 | 2.826224 | 1.300053 | 2.173930 | 0.0488 |
| X5 | -0.427680 | 0.253594 | -1.686474 | 0.1155 |
| X6 | 0.001230 | 0.000876 | 1.403855 | 0.1838 |
| C | 303.0958 | 173.3350 | 1.748612 | 0.1039 |
| R-squared | 0.839553 | | | |
| Adjuted R-squared | 0.765501 | | | |
| F-statistic | 11.33731 | | | |
| Prob (F-statistic) | 0.000162 | | | |
| Prob(Wald F-statistic) | 0.000000 | | | |

Data source: Analyze data using Eview 10 software

## 3. Chapter Summary

In the fourth chapter, this article focuses on research and analysis of the influencing factors of Vietnam's Southeastern Economic Zone to attract foreign direct investment. By collecting data and using quantitative analysis methods, this paper analyzes, evaluates and tests the factors that influence the six Southeastern Economic Zones to attract FDI capital activities, including: the market scale, human resource quality, trade policy orientation, economic development status of the Southeastern Economic Zone, The degree of openness to trade and the level of infrastructure. The research results show that the quality of human resources, the orientation of trade policies and the state of economic development have an impact on the Southeastern region's activities in attracting foreign direct investment capital. However, the market size, trade openness and infrastructure levels have not yet been found to have an impact on the Southeastern Economic Zone's ability to attract foreign direct investment. Investment capital activities have an impact. details as follows:

First, the test results show that the quality of labor in the Southeast Economic Zone affects the region's activities to attract FDI capital. If other factors remain unchanged, if the quality of human resources is increased by 1%, the amount of foreign direct investment in the Southeast region will increase to 26.86%. This means that there is an obvious positive correlation between the quality of human resources and the attraction of foreign direct investment in the Southeast. This result is similar to the research results of some scientists and scholars introduced above, and is consistent with the expectations already put forward in this article. In addition, it can be confirmed from the results that the quality of human resources is the most important factor. The quality of human resources has a greater influence on attracting foreign direct investment capital activities than other factors, and this factor determines the success of foreign direct investment activities in the Southeast region. Degree, thereby helping to promote regional economic growth.

Secondly, the test results also show that trade policy-oriented factors also affect the Southeast Region's activities in attracting foreign direct investment capital. Under the circumstance that other factors remain unchanged, if the trade policy orientation factor increases by 1%, the amount of foreign direct investment in the Southeast region will decrease by 0.05%. This means that the trade policy orientation factors have a negative correlation with the Southeastern region's attracting foreign direct investment activities. This result is similar to the research of other scientists and scholars, and it is also consistent with the expectations set in the paper. It can be seen that if Vietnam has good trade policies and measures to curb the increase in the

value of the Vietnamese dong, then the Southeast Economic Zone will increasingly attract foreign direct investment capital activities.

Finally, from the test results, it can be seen that the economic development status of the Southeast Region also affects the activities of the Southeast Region in attracting foreign direct investment capital. When other factors remain unchanged, if the economic development status of the Southeast Region increases by 1%, the FDI investment in the Southeast Region will also increase to 2.83%. This shows that there is a positive correlation between the factors of the economic development status of the southeast region and the attraction of foreign direct investment activities. This result also meets the expectations put forward in this article and is similar to the results of previous studies. Therefore, as the economy of the Southeast region continues to improve and grow, the activities of the Southeast region to attract foreign direct investment capital will continue to increase.

Based on the research results in Chapter 4, this article proposes some solutions in the next chapter to improve the efficiency of foreign direct investment in the Southeastern Economic Zone and the region.

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