

Factors affecting foreign direct investment: Evidence at foreign technology enterprises in Vietnam



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ABSTRACT

The objective of this paper is to test the theoretical model of the factors affecting the attraction of foreign direct investment (FDI) into businesses in Vietnam. The author collected information about 100 foreign technology enterprises with 360 surveys in Hanoi, Da Nang, and Ho Chi Minh City. The author uses SPSS software version 20.0 for analysis. The research results show that: investor's decision is directly affected by eight factors: (1) infrastructure; (2) human resources; (3) quality of public services (CLDV); (4) Advantage of investment sector (LTDT); (5) national brands (THDP); (6) investment policy (CSDT); (7) living and working environment (MTS); (8) competitive input cost (CPDT); of these eight factors, human resources and infrastructure are the two factors that have the most impact on the decision to attract investment from foreign technology enterprises in Vietnam. From the results of the analysis, the author recommends that the Government should promulgate supporting policies and services to attract foreign technology enterprises to invest in Vietnam in the context of Industry 4.0.

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1. Introduction

The attraction and development of foreign direct investment (FDI) in Vietnam have achieved impressive results with an increase of more than ten times in recent years. In 2018, the total newly registered FDI project capital was 35.46 billion USD, realized FDI capital was about 19.1 billion USD, up 9.1% as compared to 2017. In the first seven months of 2019, FDI capital reached approximately US \$ 11.6 billion, down 35.6% over the same period in 2018. Attracting FDI capital now needs to ensure a green, environmentally friendly development for the sustainable development goal of Vietnam. Vietnam has reformed its economy from a concentrated economy in the 1980s to a market economy since 1986 and now has undergone more than 30 years of renovation. The global financial crisis in 2007 started from the subprime lending market of the US, Vietnam is one of the most dynamic economies in the world. Our country is developing rapidly escaped from the crisis by attracting FDI projects to invest in industries such as phones, computers, textiles,

footwear, real estate by liberalizing prices, opening up international trade and allowing FDI enterprises, privately competing with state-owned enterprises (SOEs), Vietnam has become one of the most dynamic economies in the world. Vietnam has taken advantage of the US-China trade war from 2018 to now, attracting most of the world's leading corporations to invest in Vietnam. As a result, Vietnam has maintained an average growth rate of over 7% over 20 years, quadrupling the size of the economy to a GDP of about \$ 300 billion in 2019; with income per capita in 2019, it will reach nearly \$ 8800 per PPP.

Therefore, it is necessary to have an in-depth study by qualitative methods and quantitative combination to find out the factors affecting foreign direct investment in Vietnam in general and technology enterprises in the localities. Vietnam, in particular, proposes a number of policy suggestions to increase investment attraction in technology businesses in the context of the fourth industrial revolution.

2. Basis theory

2.1. Conceptual framework

According to the World Trade Organization (WTO), foreign direct investment (FDI) is when an investor from one country (host country) has assets in another country investment attraction) along with

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the right to manage that asset. With this concept, the management aspect is an aspect to distinguish FDI from other financial instruments. In most cases, investors and assets that they manage abroad are businesses.

According to Vietnam's Investment Law in 2014, FDI is understood as the foreign investor, an individual with foreign nationality, an organization established under foreign law to provide capital in cash or any other form of finance which products enter Vietnam to conduct investment activities, and participate in managing business activities in Vietnam. Here, FDI activity differs from other forms of foreign investment in having direct involvement in managing investment activities.

2.2. Factors affecting the attraction of foreign investors

When conducting research on foreign direct investment, author [Dunning \(1977\)](#) said that enterprises make direct investment abroad when it meeting 03 conditions; This is: (i) enterprises must own advantages compared to other businesses: such as scale, technology, marketing network, access to capital with low productivity; (ii) localization: it is more advantageous to use those advantages within an enterprise than to sell it to other businesses or to other businesses; (iii) production in the host country has lower costs than production in the host country.

[Lei and Chen \(2011\)](#) showed the choice decision of Taiwan firm's FDI in Vietnam. [Hunady and Orviska \(2014\)](#) also showed the factor affected the FDI in EU countries.

[Jabri and Brahim \(2015\)](#) and [Jabri et al. \(2013\)](#) also showed the determinants of FDI in the MENA region. This is the basis for my research in this paper.

The theory of investment behavior of [Romer \(1983\)](#) and [Lucas \(1988\)](#) showed that investor behavior is directly affected by (i) changes in demand; (ii) interest rates; (iii) the level of development of the financial system; (iv) public investment; (v) human resources; (vi) other investment projects in the same industry or in connected industries; (vii) the situation of technology development, the ability to absorb and apply technology; (viii) the stability of the investment environment; (ix) procedural regulations and (x) completeness of information.

[Tran \(2009\)](#) showed the relationship between the infrastructure and FDI attraction in Vietnam.

There is some research related to FDI in the world such as [Loree and Guisinger \(1995\)](#) showed the determinants of United States FDI. [Louail \(2019\)](#) referred to the determinants of foreign direct investment in Arab countries. [Nnadi and Soobaroyen \(2015\)](#) showed financial statement standards and FDI in Africa. [Pricope \(2017\)](#) referred to the FDI and adoption of international financial report standards in poor countries.

National marketing theory shows that business satisfaction indicates the level of satisfaction of

businesses when investing in a country affected by three factors: (i) attribute group about the infrastructure; (ii) attribute group of business policy, service support (SS); (iii) attribute group of living and working environment, ([Xuan et al., 2020a](#)). [Zouita et al. \(2019\)](#) also mentioned the impact of national small and medium-sized enterprises on FDI attraction in developing countries.

2.3. Proposed models and hypotheses

When conducting research on foreign investment, [Xuan et al. \(2020a\)](#) agreed that to attract domestic investors to invest their capital in projects. The project must satisfy them (i.e., be satisfied) with their investment. At the same time, [Xuan et al. \(2020b\)](#) argued that investor decisions are influenced by 08 factors:

(i) investment infrastructure; (ii) investment policy regime; (iii) living and working environment; (iv) investment advantages; (v) quality of public services; (vi) national brand; (vii) human resources; (viii) Competitive input costs.

2.3.1. Infrastructure and technology

Infrastructure is a basic and essential element for the production and business of any technology company. These include basic infrastructures such as electricity, water, transportation, premises and technical infrastructure elements such as communications and banking systems ([Xuan et al., 2020a](#)). Therefore, infrastructure has a positive effect on the decision of investors. And authors have hypothesized H1 as follows:

H1: Infrastructure and technology impact the way the decisions of investors.

2.3.2. Regime of government's support policies

The regime of government's support policies is reflected in the policies of the central and national governments on preferential treatment for foreign investment; the government's dynamism in issuing support services (SS) businesses invest in administrative procedures, legal, tax; clear and transparent documents and policies are quickly deployed to businesses so that public officials cannot profit or harass businesses ([Xuan et al., 2020a](#)). Therefore, the government's support policy has a positive impact on the decision of the investors. Therefore, the authors hypothesize H2 as follows:

H2: Mode policy to support the government's work in the same direction to the decisions of investors

2.3.3. Habitat and work

Environment to live and work The expression through the elements of culture, education, health, quality of the living environment, play, activities,

harmony and reasonable cost represent a quality and home-friendly living environment investors and employees to be able to operate effectively and with long-term commitment (Xuan et al., 2020a). Therefore, the living and working environment have a positive impact on the decision of investors. Therefore, the author hypothesizes H3 as follows:

H3: The living and working environment has the same directional impact on investors' decisions.

2.3.4. Investment advantages of the business

Enterprises invest in taking advantage of the industry. These advantages are near the main raw material market for production or near the main consumer market, close to the business partners to reduce shipping costs, increase connectivity or compete with the main competitor to maintain the presence and gain market share (Xuan et al., 2020a). Therefore, the investment advantage of the enterprise has a positive effect on the decision of the investors. Therefore, the author hypothesizes H4 as follows:

H4: Investment advantages of enterprises have a positive effect on the decisions of investors.

2.3.5. Public service quality

A government with good public service quality can easily comply with government policies, saving time and money in dealing with the necessary administrative procedures investment and production, as well as benefit from the State support in advantageous areas and technology enterprises, often need support services to access. To attract investment, it is necessary to provide investors with quality public services such as quick customs procedures; support market information and advertising; Industrial property; trade promotion (Xuan et al., 2020a). Therefore, the quality of public services has a positive impact on the decisions of investors. And the author has put forward the hypothesis H5:

H5: The quality of public services has a positive impact on the decisions of investors.

2.3.6. National brand

A brand can be considered as one of the factors affecting the decisions of investment customers. Businesses decide to invest when they operate effectively there. A business can be considered as operating effectively when the goals that it sets are achieved as desired. The two most important goals are to grow sales and profit as you like. Investors often look at branded countries to invest because they can save money on understanding the investment environment and avoid risks (Xuan et al., 2020a). Therefore, Brand has a positive impact on

the decisions of investors. And the author has put forward the hypothesis H6 as follows:

H6: National brands have a positive effect on the decisions of investors.

2.3.7. Human resources

Human resources are an important factor that a business must consider when deciding whether to invest in it or not. Abundant and cheap human resource is an attractive factor to attract enterprises with low technological level and labor-intensive; skilled and disciplined labor suitable for industrial production chains; and especially managerial and technical workers with foreign language skills working for foreign-invested enterprises (Xuan et al., 2020a). A location with abundant and diverse human resources is always an attractive factor for businesses to invest in. Therefore, human resources will have a positive impact on the decisions of investors. And the author has put forward the hypothesis H7 as follows:

H7: Human resources have a positive impact on the decisions of investors.

2.3.8. Competitive input costs competitive

Input costs are the basic factors directly related to the investment efficiency of a business. Businesses can increase their competitiveness or seek higher profits when their input costs are low. A competitive cost besides reasonable price must always be accompanied by the quality of guaranteed products and services (Xuan et al., 2020a). Therefore, the competitive input cost will have a positive impact on the decision of the investors. And the author has put forward the hypothesis H8 as follows:

H8: Competitive input costs have a positive effect on the decisions of investors.

2.3.9. The investor's decision

The investor will decide to invest in production and business activities that they feel are favorable and progress as desired. The effectiveness in investment activities also reflects the level of investment decision of the investor. Investors who decide to invest tend to continue long-term investments in the locality as well as introduce the locality to other investors (Xuan et al., 2020b).

3. Research methodology

This research combines qualitative research and quantitative research. The qualitative research was conducted through a group discussion with 10 respondents, of which 20 foreign investors entered technology enterprises in Hanoi. In addition, the

survey was emailed to 80 foreign technology enterprises in Da Nang and Ho Chi Minh.

Next, conduct a preliminary quantitative study with 360 respondents who are foreign direct investors in the 2019 period. By convenient sampling method, direct interview technique through questionnaire for evaluation, consistency, and structure of scales.

The official study was conducted with 400 respondents who are foreign direct investors (of which 360 valid questionnaires) at Vietnamese technology enterprises in the period from 4/2019 to 8/2019, convenient sampling method by direct interview technique through a questionnaire to test the model and research hypotheses.

4. Research results

4.1. Test results of the reliability of the scale through the Cronbach's Alpha coefficient

Test the reliability of the research concepts through Cronbach's Alpha coefficient. The condition for reliability is Cronbach's Alpha coefficient > 0.6 and the total correlation > 0.3 (Nunnally, 1994). The testing results show that: Only the observed variable CLDV3 (CLDV3: fast customs procedures) has a correlation coefficient between variables and a total of less than 0.3, so it is disqualified. Other observed variables satisfy the requirement of reliability testing through Cronbach's Alpha coefficients. The research results are shown as Table 1.

Table 1: Results of testing the reliability of the research concept

| | Medium-scale if variable type | Variance the scale if type variable | Correlation variables-total | Alpha if the variable type |
|----------------------------------------------------------------------------------|-------------------------------|-------------------------------------|-----------------------------|----------------------------|
| Infrastructure: Cronbach's alpha=0.802 | | | | |
| CSHT1: convenient transportation (time and cost) | 17.9699 | 5.853 | 0.536 | 0.778 |
| CSHT2: power supply systems to meet requirements | 18.1123 | 6.199 | 0.543 | 0.774 |
| CSHT3: system water supply, sewerage full | 18.0767 | 6.456 | 0.573 | 0.770 |
| CSHT4: convenient communications (telephone, internet, ...) | 18.1397 | 6.099 | 0.609 | 0.760 |
| CSHT5: premises meet the requirements | 17.9671 | 6.362 | 0.527 | 0.778 |
| CSHT6: the banking system meets the requirements | 17.9945 | 5.720 | 0.585 | 0.766 |
| Policy support CSDT: Cronbach's alpha = 0.823 | | | | |
| CSDT1: policy attractive investment incentives | 13.895 9 | 5,165 | 0.614 | 0.794 |
| CSDT2: Clear tax system (tax officials do not take advantage of self-interest) | 14,4219 | 4,008 | 0.676 | 0.774 |
| CSDT3: Legal documents are quickly deployed to the company | 13,990 | 5,099 | 0.631 | 0.790 |
| CSDT4: Dynamic leadership in supporting businesses | 13.8822 | 4,769 | 0.605 | 0.791 |
| CSDT5: Businesses will still invest without attractive policies | 13,9041 | 4,268 | 0.627 | 0.788 |
| MTS Habitat: Cronbach's Alpha = 0.843 | | | | |
| MTS1: Real estate VND | 18,7562 | 9,833 | 0.578 | 0.826 |
| MTS2: the school system meets the needs of | 18,9452 | 9,085 | 0.570 | 0.826 |
| MTS3: The health system meets the needs | 19,0137 | 9,689 | 0.573 | 0.826 |
| MTS4: The environment unpolluted | 18.8192 | 8.565 | 0.642 | 0.815 |
| MTS5: point entertainment attractive | 18.8192 | 8.819 | 0.645 | 0.814 |
| MTS6: people friendly | 18.8247 | 9.260 | 0.590 | 0.823 |
| MTS7: Cost of living is suitable | 18.9315 | 9.053 | 0.608 | 0.820 |
| Investment industry Advantage: Cronbach's alpha = 0.843 | | | | |
| LTD1: Convenient for main raw materials for the manufacture | 10.2192 | 3.260 | 0.700 | 0.791 |
| LTD2: Convenience key markets | 10.0740 | 3.635 | 0.665 | 0.809 |
| LTD3: Nearly all customers (distributors or main supply) | 10.1534 | 3.399 | 0.679 | 0.800 |
| LTD4: competitive market with major competitors | 10.0164 | 3.154 | 0.678 | 0.803 |
| Service Quality CLDV: Cronbach's alpha = 707 | | | | |
| CLDV1: simple administrative procedures and quick | 6.3397 | 1.110 | 0.559 | 0.580 |
| CLDV2: Government support thoughtful when businesses need | 6.2082 | 0.913 | 0.510 | 0.660 |
| CLDV4: The investment promotion center, with support services is good | 6.2466 | 1.175 | 0.531 | 0.617 |
| National brand: Cronbach's alpha = 0.838 | | | | |
| THDP1: I invest here simply because he wanted to invest | 10.0521 | 3.170 | 0.665 | 0.798 |
| THDP2: I think many people Successful Investment in Vietnam and I'd like them | 9.8904 | 3.235 | 0.683 | 0.789 |
| THDP3: Vietnamese is an impressive brand | 9.8110 | 3.401 | 0.677 | 0.794 |
| THDP4: I think Vietnam is a destination for investors | 9,9452 | 3,244 | 0.660 | 0.800 |
| Human resources: Cronbach's Alpha = 0.793 | | | | |
| NNL1: Training schools that meet the requirements of | 18,5041 | 5,965 | 0.509 | 0.770 |
| NNL2: unskilled labor is so much | 18,2493 | 5,523 | 0.539 | 0.763 |
| NNL3: Labor with disciplined | 18.0932 | 5.892 | 0.511 | 0.769 |
| NNL4: the ability to acquire and apply the technology of good labor | 18.2219 | 5.492 | 0.578 | 0.753 |
| NNL5: company did not meet language barriers | 18.2082 | 5.391 | 0.537 | 0.765 |
| NNL6: Easy to recruit good managers | 18.2027 | 5.354 | 0.605 | 0.747 |
| Costs competition CPCT: Cronbach's alpha = 0.804 | | | | |
| CPCT1: rent slow land | 10.8795 | 2.947 | 0.636 | 0.745 |
| CPCT2: cheap labor costs | 10.9096 | 3,044 | 0.632 | 0, 747 |
| CPCT3: Electricity prices, water prices, transport charges reasonable | 10.8712 | 3.222 | 0.595 | 0.765 |
| CPCT4: Price service competitive communications | 10.7616 | 2.951 | 0.611 | 0.758 |
| Decision of investors SAT: Cronbach's alpha = 0.825 | | | | |
| SAT1: I think sales company has / will grow as desired | 14.6000 | 3.427 | 0.658 | 0.780 |
| SAT2: I think the profit of the company has / will achieve desired | 14.5425 | 3.232 | 0.647 | 0.782 |
| SAT3: I think we will continue long-term investment | 14.3699 | 3.882 | 0.545 | 0.812 |
| SAT4: I will introduce the Vietnamese for other companies | 14.4795 | 3.250 | 0.631 | 0.787 |
| SAT5: overall I think our company is very pleased with the investment in Vietnam | 14.7644 | 3.093 | 0.643 | 0.785 |

Source: author's calculations

Table 2: Results EFA factors affecting investment attraction

| Observed variable | Factor | | | | | | | |
|-------------------|--------|------------|--------|--------|--------|----------|--------|--------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| MTS5 | 0.752 | | | | | | | |
| MTS4 | 0.744 | | | | | | | |
| MTS7 | 0.724 | | | | | | | |
| MTS6 | 0.714 | | | | | | | |
| MTS1 | 0.705 | | | | | | | |
| MTS3 | 0.699 | | | | | | | |
| MTS2 | 0.691 | | | | | | | |
| CSHT4 | | 0.755 | | | | | | |
| CSHT6 | | 0.733 | | | | | | |
| CSHT3 | | 0.720 | | | | | | |
| CSHT2 | | 0.690 | | | | | | |
| CSHT5 | | 0.684 | | | | | | |
| CSHT1 | | 0.683 | | | | | | |
| CSDT2 | | | 0.811 | | | | | |
| CSDT5 | | | 0.766 | | | | | |
| CSDT3 | | | 0.765 | | | | | |
| CSDT1 | | | 0.752 | | | | | |
| CSDT4 | | | 0.751 | | | | | |
| NNL6 | | | | 0.751 | | | | |
| NNL4 | | | | 0.731 | | | | |
| NNL5 | | | | 0.701 | | | | |
| NNL2 | | | | 0.690 | | | | |
| NNL1 | | | | 0.665 | | | | |
| NNL3 | | | | 0.659 | | | | |
| LTD1 | | | | | 0.835 | | | |
| LTD3 | | | | | 0.820 | | | |
| LTD4 | | | | | 0.813 | | | |
| LTD2 | | | | | 0.808 | | | |
| THDP2 | | | | | | 0.825 | | |
| THDP3 | | | | | | 0.819 | | |
| THDP1 | | | | | | 0.812 | | |
| THDP4 | | | | | | 0.803 | | |
| CPCT1 | | | | | | | 0.812 | |
| CPCT2 | | | | | | | 0.789 | |
| CPCT4 | | | | | | | 0.777 | |
| CPCT3 | | | | | | | 0.774 | |
| CLDV1 | | | | | | | | 0.812 |
| CLDV4 | | | | | | | | 0.785 |
| CLDV2 | | | | | | | | 0.780 |
| Eigenvalue | 3.657 | 3.083 | 3.058 | 2.982 | 2.820 | 2.760 | 2.545 | 1.984 |
| % of variance | 9.376 | 7.906 | 7.840 | 7.647 | 7.231 | 7.087 | 6.525 | 5.087 |
| Cumulative % | 9.367 | 17.283 | 25.122 | 32.770 | 40.000 | 47.078 | 53.603 | 58.690 |
| KMO | | | | | 0.793 | | | |
| Bartlett's Test | | Chi-square | | | | 4741,098 | | |
| | | df | | | | 741 | | |
| | | Sig. | | | | 0.000 | | |

Source: Calculated by the author

4.2. Explore factor analysis EFA Results

About EFA factors affecting the decisions of foreign direct investment (FDI):

The EFA analysis showed that: 39 observed variables used to measure research concepts after EFA analysis was extracted into 08 factors. The results are presented in Table 2. Regarding the EFA results, the determinant of the investor: The EFA analysis results show that: 05 observed variables used to measure the investor's investment decision after distribution. EFA analysis is drawn into one factor. Specific results are presented in Table 3.

4.3. Testing models and research hypotheses

4.3.1. The level of explanation of the models

The research results show that: The R^2 adjusted is 0.635. Thus, 63.5% of investor decision changes are explained by independent variables. Test results are presented in Table 4.

4.3.2. Relevance

The test results show Significance Sig <0.05; Therefore, it can be concluded that the given model is consistent with data collected from the market. In other words, the independent variables are linearly

correlated with the dependent variables with a significance level of 5%, 95% confidence level. The results are presented in Table 5.

On the results of testing of hypotheses: Test results show that 08 hypotheses are accepted at the 5% significance level and the 95% confidence level. Test results are presented in Table 6.

5. Discuss research results and suggest government support policies

5.1. Discuss research results

Findings show that: 8 factors measure the level of Influence the decision of investors in Vietnam as the following equation:

$$SAT = 0.171 \times MTS + 0.482 \times CSHT + 0.206 \times CSDT + 0.403 \times NNL + 0.222 \times LTD + 0.215 \times THDP + 0.143 \times CPCT + 0.241 \times CLDV$$

Thus, the research results show that out of 08 factors affecting investors' decisions, infrastructure and human resources factors are the most influential factors. This means that infrastructure and human resources are the two factors that investors consider most before making investment decisions. Therefore, for investors to decide to invest in, government and local leaders need to pay much attention to these two factors. This will be the basis for attracting

investment. Policy implications Based on the research results, a number of policy implications about infrastructure and human resources because these are the two factors that investors are interested in when deciding to invest in businesses technology in the province of Vietnam.

5.1.1. Infrastructure

The research results show that: infrastructure is the most interesting factor by investors in Vietnamese technology enterprises. Therefore, some policy suggestions for further improvement of infrastructure, specifically:

- Firstly, further improving the transport system to support technology businesses, especially technological infrastructure systems such as 5G networks, internet popularity and transmission speed, Information systems, and developed telecommunication infrastructure are very important factors in attracting FDI of foreign technology enterprises.
- Secondly, upgrading the electrical network system, reducing the preferential price of electricity and water prices of businesses in technology enterprises.
- Thirdly, upgrading the water supply and drainage systems in technology enterprises. Provide business support services in training high-quality human resources, market search, and legal advice.

- Fourthly, upgrade communication systems such as post, telecommunications, and information technology services to meet requirements.
- And finally, implement preferential policies for income tax, value-added tax, labor tax of technology FDI enterprises.

Table 3: Results EFA decisions of investors

| Variable observations | Factor | |
|-----------------------|------------|---------|
| | 1 | |
| SAT1 | 0.797 | |
| SAT2 | 0.788 | |
| SAT5 | 0.783 | |
| SAT4 | 0.775 | |
| SAT3 | 0.702 | |
| Eigenvalue | 2.963% | |
| of variance | 59.251 | |
| KMO | 0.853 | |
| Bartlett's Test | Chi-square | 595,649 |
| | df | 10 |
| | Sig. | 0,000 |

Source: Authors' calculations

Table 4: Summary

| Model | R | R square | Adjusted R Square | Std. Error of the Estimate |
|-------|--------------------|----------|-------------------|----------------------------|
| 1 | 0.802 ^a | 0.664 | 0.635 | 0.60404788 |

A. Predictors: (Constant), CLDV, CPCT, THDP, LTDT, NNL, CSDT, CSHT, MTS

Table 5: ANOVA analysis

| Model | Sum of Squares | Df | Mean Square | F | Sig. |
|-------------|----------------|-----|-------------|--------|--------------------|
| Regression | 234.105 | 8 | 29.263 | 80.201 | 0.000 ^b |
| 1. Residual | 129.895 | 356 | 0.365 | | |
| Total | 364.000 | 364 | | | |

a. Dependent Variable: SAT; b. Predictors: (Constant), CLDV, CPCT, THDP, LTDT, NNL, investigative police, infrastructure, MTS

Table 6: Test hypothesis test results

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Linearity Statistics | |
|----------------|-----------------------------|------------|---------------------------|--------|-------|----------------------|-------|
| | B | Std. Error | Beta | | | Tolerance | VIF |
| (Constant) | 016 -1.205E | 0.032 | | 0.000 | 1.000 | | |
| MTS | 0.171 | 0.032 | 0.171 | 5.391 | 0.000 | 1.000 | 1.000 |
| Infrastructure | 0.482 | 0.032 | 0.482 | 15.220 | 0.000 | 1.000 | 1.000 |
| CSDT | 0.206 | 0.032 | 0.206 | 6.501 | 0.000 | 1.000 | 1.000 |
| NNL | 0.403 | 0.032 | 0.403 | 12.735 | 0.000 | 1.000 | 1.000 |
| LTDT | 0.228 | 0.032 | 0.228 | 7.203 | 0.000 | 1.000 | 1.000 |
| THDP | 0.215 | 0.032 | 0.215 | 6.792 | 0.000 | 1.000 | 1.000 |
| CPCT | 0.143 | 0.032 | 0.143 | 4.507 | 0.000 | 1.000 | 1.000 |
| CLDV | 0.241 | 0.032 | 0.241 | 7.624 | 0.000 | 1.000 | 1.000 |

a. Dependent Variable: SAT (Source: Authors' calculations)

5.1.2. Human resources

The research results show that human resources are the second factor of investors when investing in Vietnamese technology enterprises. Therefore, some policy suggestions to improve the quality of human resources to attract more investors. Specifically, as follows:

- Firstly, renovating practical training programs at Vietnam University; especially, encourage some universities to train in technology with preferential policies, in addition, encourage businesses to create favorable conditions for students of these universities to participate in internships and professional practice to continue access to the working environment, access to current technology.

- Secondly, connecting businesses with universities to open training and technology training courses for foreign workers. This will help workers, especially technology engineers, have access to modern materials and technologies.
- Third, there are personal income tax incentives for technology professionals working in Vietnam to attract high-quality labor.

In the context of many resources being depleted, climate change is increasing, the trend of developing a green and sustainable economy is gradually becoming a trend of the era, renewable energy, and new energy investment, the prospect of becoming a key energy source in the future. In that trend, Vietnam's Socio-Economic Development Strategy for the period of 2011-2020 has also shown the need for structural reforms, environmental sustainability, and

social justice as well as new issues that arise during macroeconomic stability.

The document of the 12th Party Congress has determined the direction of completing the FDI policy as follows: Reviewing and amending laws and policies to strongly attract FDI, especially high-tech and friendly projects, environment, high value-added products, and high localization rates, participating in global production networks and value chains to promote economic restructuring.

Increasing FDI attraction with high technology, environment-friendly and labor-intensive Encouraging investment in building infrastructure and supporting industries, renewable energy, new materials, electronics, information technology, plant varieties, domestic animals, human resource training and health care health, high quality there is a flexible mechanism for specific projects. Encouraging the establishment of research and development centers for foreign-invested technology enterprises in Vietnam. “

Grasping the spirit of the 12th Congress, the Government, ministries, branches, and countries have been promoting the improvement of economic institutions, administrative and judicial reforms; improve business investment environment according to international standards; ensure efficient operation of market types; promoting marketization of production factors; focus on overcoming inadequacies in infrastructure, human resources; developing the system of domestic enterprises In which, clearly determining the target of attracting and using FDI capital must go into more substance, both in quantity and quality, in both width and depth; ensuring sustainable development, encouraging innovation and creation of close links between FDI enterprises and domestic enterprises, raising Vietnam's position in the global value chain and the capacity and creativity of its forces. Vietnam's labor.

5.2. Some suggestions for the government support policies

However, according to the experts, to attract and use FDI in "green" efficiency, next time, Vietnam should adjust policy-oriented investment attraction of FDI as follows:

- Firstly, to prioritize the attraction of FDI into hi-tech and advanced industries and technologies, environmentally friendly technologies, clean and renewable energies; manufacture of medical equipment, provision of high-quality health care, education and training, tourism, financial services, logistics, and other modern services; hi-tech agricultural production, smart agriculture; develop modern technical infrastructure, especially new industries based on industry 4.0. Attracting FDI must ensure the harmony between export growth and investment in the development of value-added products and services and the use of domestic raw

materials, development of supporting industries and human resource training in the country.

- Secondly, regarding partners, it is necessary to focus on attracting FDI, especially multinational corporations associated with domestic enterprises to form and develop sectorial clusters according to each value chain. In the short term, continue to attract FDI into sectors that Vietnam still has advantages such as textiles, footwear at the same time, and focus on the stages of creating high added value, associated with the production process smart, automation. Implementing Multilateralisation and diversification to attract FDI from markets and potential partners. Exploiting effectively relationships with strategic partners (comprehensive partners, comprehensive strategic partners), focusing on the world's leading developed countries, transnational corporations holding source technologies, advanced and modern management qualifications. Besides, proactively monitoring and evaluating the trend of shifting FDI inflows into Vietnam with outdated technologies, which are likely to cause environmental pollution from some countries in the region to have solutions to prevent them in time. Attracting FDI from small and medium-sized enterprises, small-scale and micro-projects must ensure the conditions for upgrading technology and joining global production and value chains, developing supporting industries.
- Thirdly, attracting FDI must be suitable to the advantages, conditions, development level and planning of each country in regional linkages, ensuring the overall socio-economic-environmental efficiency. For sensitive areas and areas related to national defense and security, border areas, sea areas, islands, exclusive economic zones, attracting FDI should ensure national defense and security national sovereignty to the forefront.

In summary, this paper referred to the main factors affected the Vietnam FDI are infrastructures and human capital. It is contracted to [Hunady and Orviska \(2014\)](#) showed the determinants of foreign direct investment in EU countries in which the main factors are corporate taxes and wages cost. This research is the basis for the Vietnam government to have policies to attract FDI in general and the technology in particular.

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Compliance with ethical standards

Conflict of interest

The authors declare that they have no conflict of interest.

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