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Cost-benefit Analysis of FDI: FDI Barriers and Firm Internal Capabilities

Nguyen Thanh Hoang[1]; Dinh Tran Ngoc Huy[2*]
[1]The University of Social Sciences and Humanities, Vietnam National University of Ho Chi Minh City, Vietnam.
[1]hoangnguyenfir@hcmussh.edu.vn
[2*]MBA, Banking University HCMC, Ho Chi Minh City Vietnam.
International University of Japan, Niigata, Japan.
[2*]Dtnhuy2010@gmail.com

Abstract
We conduct this study to make an assessment on FDI, its benefit and connection with firm internal capabilities in Vietnam case. Methods we use include: qualitative analysis with statistics and data processing. Also, we used qualitative analysis to make policy suggestions with synthesis and inductive methods. We analyze the research based on five dimensions: corporate governance capacities, human resources, finance, technology, and supply. Research results show us that the five dimensions together with viewpoints from experts are quite suitable for our conducted experimental research, esp. To express the connection between local firms, national firms and foreign investment firms. Also we assess FDI based on an approach of cost-benefit analysis including FDI barriers and firm internal capabilities. Through a survey of 55 managers of FDI enterprises in Viet-Sing industrial park, the results show that enterprises here only face three difficulties in terms of costs of labor, water and energy supply, and governance and hostile regulations. This study makes a small contribution to FDI barrier theory through empirical evidence from an industrial park in a developing country, Vietnam. Then we can make policy implications and our study limitation is that we can expand for other market.

Key-words: Internal Capabilities, FDI Barriers, Cost-benefit Analysis, Experts Viewpoint, Local Companies.
JEL: F36, F42, M21.

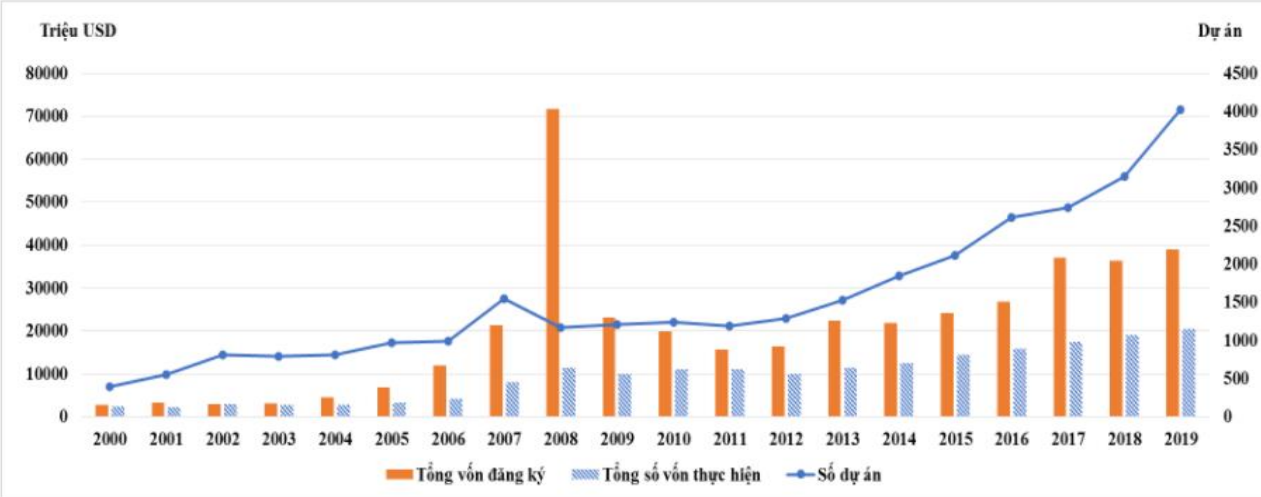
1. Introduction

We cannot deny the important roles of foreign investment (FDI) into the local enterprises and to push the local economic growth. FDI stands for Foreign Direct Investment, which means an

investment made by a company or individual of one country in another country. This is a form of long-term investment and is made by setting up business establishments, factories with the purpose of gaining business benefits and holding management rights in hand.

We figure out the FDI investment in the below chart:

Chart 1- FDI over Years



(Source: Bureau statistics)

Shown in the above chart, The number of projects with FDI has been increasing over 20 years.

Then we can experience of values and benefits from FDI companies into the local economy and firms including but not limited to: technology transfer, knowledge transfer and capital transfer, etc. Together with management experience transfer, FDI firms have contributed much to increase productivity of local companies, both in terms of revenues and profits, national budget contribution and of social values creation such as high employment for pushing the local economy.

This paper organized with introduction, literature review, main results, discussion and conclusion.

2. Literature Review

For the World Trade Organization, FDI is understood as the business activity or the purchase of business assets abroad by an investor, including the holding of ownership and control of the interests of a foreign company.

Hoang Thanh Hanh, Dinh Tran Ngoc Huy, Nguyen Thi Thanh Phuong, Le Thi Viet Nga, Pham Tuan Anh (2020) presented the findings explore that positive nexus among the international trade, real output, financial development, foreign direct investment and consumption of RE (renewable energy) sector.

We also can summarize some previous studies in below tale:

Table 1- Summary of Previous Studies

Authors	**Year**	**Contents, results**
Kim and Lyn	1987	They see that multinational companies (foreign) attracted by US market and focus on industries having intensive R&D efforts with many marketing plans.
Bitzenis	2006	Pointed that obstacles that foreign investors and foreign Multinational Enterprises (MNEs), from certain sectors and origin, faced during the establishment of their FDI projects in a transition country, such as Bulgaria. Survey concluded that foreign MNEs looked upon bureaucratic or administrative issues and the regulatory environment, together with corruption, political and macroeconomic instability, as the most decisive barriers in their decision to undertake FDI projects in a Balkan country.
Azzimonti and Sarte	2007	Stated that Lack of commitment of a government that cannot write binding contracts with multinational corporations, together with the existence of redistributive uncertainty of the amount expropriated, result in excessive expropriation. We find that, consistent with empirical work, countries that are politically stable attract more FDI because foreign investors expect lower expropriation rates.
Jordaan, Douw and Qiang, 2020	2020	There are 3 jey compnents that affect FDI and local firms connection such as: materials demand and FDI firm local sources policy, macro conditions, infrastructure and local enterprises ability.
OECD-UNIDO, 2019	2019	Still there is low ratio of buying input raw materials in ASEAN, by foreign multinational corps, for instance, of that, ratio in Vietnam just about 20%, and 5% of input materials produced by local firms.
Jordaan *et al*	2020	From World Bank, SMES have restrictions such as limited capacity, material lacking, small scale of production, etc. On the other hand, FDi will create intl business experience and help local firms to take part in global supply chain as a supplier to FDI, participation in global value chains, participation in research and development, then firms can benefit in terms of governance, technology gap, capital, etc.

Dinh Tran Ngoc Huy (2015) mentioned After the recent global crisis, corporate scandals and bankruptcy in US and Europe, there is some certain evidence on weak corporate governance, risk management and audit system. The 2009 India Code of Corporate Governance also revealed that during the crisis time, there are certain weaknesses although corporate structure is fairly durable.

Besides, we can consider viewpoints experts' opinions around the linkage between local and FDI enterprises in Vietnam such as:

"Enterprises lack labour skills, governance capacity, little technological innovation, difficult access to finance ..."

Ms. Pham Chi Lan, Economist, Former Vice President of Vietnam Chamber of Commerce and Industry (VCCI)

Ministry of Industry and Trade mentioned that the three biggest hindrances for Vietnamese enterprises participating in the global value chain are capital, human resources and technology (Ha Linh, 2016).

3. Methodology

Qualitative method: we collect primary data through in-depth interviews; one paper used macro-level data; then we use synthesis, inductive methods combined with dialectical materialism method to make further analysis.

Quantitative Method

Research Model

Vietnam - Singapore Industrial Park II-A (VSIP II-A), established in 2008, is located in Binh Duong province, with a total area of 1000 Ha.

Industries attracting investment include Manufacture, assembly & auto parts; Power electronics; Mechanical; Textile; Pharmaceutical & healthcare; Food & Beverages; Supporting industry & other industries. This is one of the most successful industrial parks in Vietnam.

Dependent variable: FDI-I: Investment Plan

Independent variables:

1. POL: Volatility of the Political Environment
2. LB-S: Limited availability of Skilled Labor
3. TRANS: Low Transparency
4. LB-C: High Costs of Labor
5. LB-P: Low Labor Productivity
6. TAX: Insentive of Tax
7. INF-P: Poor Physical Infrastructure

8. INF-S: IT infrastructure
9. WES: Poor Water and Energy Supply
10. UME: Unstable macroeconomic environment
11. GOVN: Poor Governance and Hostile regulations

Research Method and Data

Survey questionnaire to 91 enterprises in Viet-Sing Industrial Park in Binh Duong province, Vietnam.

Responses: 51.

4. Main Results

Cost-benefit Analysis of FDI Investment

Cost analysis	**Benefits Assessment**
If we manage environment bad, we can receive bad results for example Formosa Ha Tinh project, Vedan and other projects… Also we can keep FDI inside the country and manage better price transfer in FDI firms. In addition, Technology transfer need to be assessed during operation of FDI firms. (But good management of FDI firms and good environment solutions also need to be rewarded by the local authorities over years through periodical assessment). Next, FDI investment can create big size companies, threats for local firms and lead to capital transfer in local sector.	**- Management experience transfer:** Management experience from developed countries can transfer to developing countries to push productivity in various sectors: manufacturing, services, banking and finance, stock markets, etc. **- Technology transfer:** Good technology, for instance, environmental technology can be transferred to keep our country environment fresher and greener. **- Capital transfer:** Good cash flows can enter into the countries in various projects: environment to food and beverage and investment and banks.

Beside, OECD (2002) stated that With most FDI flows originating from OECD countries, developed countries can contribute to advancing this agenda. They can facilitate developing countries' access to international markets and technology, and ensure policy coherence for development more generally; use overseas development assistance (ODA) to leverage public/private investment projects; encourage non-OECD countries to integrate further into rules-based international frameworks for investment.

Factors that affect FDI Investment

The global crisis 2007-2009 has influenced significantly to global economic growth and to FDI. Then, the covid 19 in recent years and China-USA commerce war has affected too much to FDI investment into developing countries esp. Vietnam, Myanmar and Southeast Asian countries.

After China-USA trade war, investment from China can move to Vietnam, as well as investment capital from USA can be attracted to our country, also we can increase huge volume of export of agricultural products and others to these big nations and potential markets.

Reasons that we can Push FDI Investment

Vietnam has stable economic growth and political state, we also maintain good international relations with neighbor countries in Asia Pacific and Europe and America.

Vietnam also can provide suitable and adequate training to upgrade our employee and labor force in various industries and sectors such as education, manufacturing, banking and finance, medicine, etc.

Viewpoints on FDI Barriers and Results

The results (in below figures) showed that this model was significant with Sig. < 0.000, with no multicollinearity (VIF < 10). The value of R^2, adjusted R^2 and F-value were 0.453, 0.299 and 2.940 respectively. This meaned the variation of the dependent variable was explained by 45.3% of the variation in the independent variable.

Of the eleven criteria included in the survey, six are not statistically related to the investment plan of the enterprise. This can also be understood that these criteria are not barriers to the operation of enterprises at VSIP. The remaining five criteria have a statistical relationship with the investment plan. In which, two criteria that have a positive impact are tax incentives (TAX) and soft infrastructure (INF-S) including information and communication systems and technology applications in the management of VSIP. If the convenience of technological infrastructure increases 1% then investment expansion increases 0.697%. The same goes for the relationship between tax incentives (1%) and investment plans (0.237%).

Although we did not expect a barrier in this study; Unfortunately, there are three factors that negatively affect the future investment plans of FDI enterprises in VSIP. First of all, the cost of labor

is increasing. If the regional minimum wage is taken as the base, VSIP belongs to region I, the salary in 2009 is 800,000 VND (Decree 110/2008/ND-CP), then in 2019 it has increased 5.22 times to reach 4,180,000 VND (Decree Decree 157/2018/ND-CP); and increase to VND 4,420,000 by 2020 (Decree No. 90/2019/ND-CP). Increasing labor costs while the labor supply is increasingly scarce makes it understandable for businesses to consider expanding.

Research shows that a 1% increase in labor costs will reduce 0.401% for maintaining or expanding investment in VSIP. For manufacturing enterprises, electricity and water are two important inputs. The shortage or supply interruption of these two input sources will greatly affect the production activities of enterprises. Therefore, when Poor Water and Energy Supply (WES) increases by 1%, it will negatively affect investment plans of enterprises by 0.328%. It is surprising that VSIP is operated by a Singaporean enterprise, but the research results show that investors are still not satisfied with the regulations and governance of VSIP. This level of negative impact is quite high, just 1% dissatisfaction can cause a decrease in investment plan by 0.393%.

Among these five impact factors, the good thing is that technology application infrastructure has the strongest positive impact (0.840), followed by WES (0.518), LB-C (0.478), GOVN (0.454), and TAX (0.332).

Figure 1 - Model and ANOVA Results

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.673[a]	.453	.299	.780
a. Predictors: (Constant), POL, LB-S, TRANS, LB-C, LB-P, TAX, INF-P, INF-S, WES, UME, GOVN				

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19.680	11	1.789	2.940	.006[b]
	Residual	23.732	39	.609		
	Total	43.412	50			
a. Dependent Variable: FDI-I						
b. Predictors: (Constant), POL, LB-S, TRANS, LB-C, LB-P, TAX, INF-P, INF-S, WES, UME, GOVN						

Figure 2 - Model and Coefficient Results

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.129	.873		3.582	.001		
	LB-S	.047	.118	.052	.401	.690	.829	1.206
	LB-P	.073	.130	.083	.560	.579	.639	1.565
	LB-C	**-.401**	**.141**	**-.478**	**-2.845**	**.007***	.496	2.016
	TAX	**.237**	**.128**	**.332**	**1.854**	**.071****	.438	2.281
	INF-P	-.006	.166	-.007	-.035	.972	.374	2.677
	WES	**-.328**	**.138**	**-.518**	**-2.379**	**.022***	.296	3.376
	INF-S	**.697**	**.198**	**.840**	**3.519**	**.001***	.246	4.062
	GOVN	**-.393**	**.230**	**-.454**	**-1.709**	**.095****	.198	5.045
	UME	.197	.179	.251	1.100	.278	.270	3.708
	POL	.098	.131	.165	.744	.461	.284	3.519
	TRANS	-.195	.122	-.227	-1.597	.118	.692	1.446
a. Dependent Variable: FDI								

(*)(**)denote significance at 5%, 10% level.

Barriers for FDI

First, in some key strategic sectors, FDI investment can be limited, this is depending on each country policy. There might be some other restrictions for FDI investment in each country case.

Second, Profits flows from FDI firm might not be re-invested into company operation, so the firm cannot develop more.

5. Discussion

We see advantages of FDI investment such as: FDI benefits measure through GDP growth, export values and quantities, capital invested, and jobs created.

On the other hand, we also find out barriers of FDI investment for instance: the disparity or gap between internal capabilities of local and foreign companies.

6. Conclusion

Looking at the fluctuation of FDI inflows into Vietnam, it shows that foreign investors are looking towards some service industries of Vietnam such as real estate business; wholesale and retail,

repair of automobiles, motorcycles and motorbikes; professional activities, science and technology and prominently the arts, and entertainment industry.

Our country need to increase advantages and strengths from FDI more and more, such as medium to advanced technology transfer and environmental management technology. Form policy side, we need to evaluate the quality of FDI investment over years, and increase quality of FDI in several markets such as real estate, etc.

Hence, the government and local authorities need to evaluate internal capabilities of local firms, if they give low results, then we need to push more FDI investment. Our study shows barriers not only to help FDI enterprises but also to help host countries see the future to improve the investment environment, quickly fill and remove obstacles.

7. Limitation of Research

We can expand for other market and collect information from foreign experts' opinions as well.

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