



Factors Influencing Foreign Direct Investment Attraction in Hung Yen Industrial Zones

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Abstract

This research is conducted for investigating the impact levels of determinants on attraction of foreign direct investment in industrial zones in the area of Hung Yen. Data were collected from questionnaires from management and responsible staff working in Hung Yen industrial zones. Based on the data collected, regression model has been run for showing the impact levels of determinants on the dependent variable of investor decisions. The results show that investor decision is influenced by 8 factors including infrastructure; human resources; quality of public service; advantage of investment; local brands; investment policy; living and working environment; competitive input costs. In which, infrastructure, human resources, and public service quality have the strongest impacts on investor decision.

Keywords: *FDI, investors, industrial zones, Hung Yen*

ABBREVIATION

FDI: Foreign Direct Investment

WTO: the World Trade Organization

INTRODUCTION

Hung Yen is one of the provinces attracted large numbers of foreign investment enterprises. In the first six months of 2017, according to the report of the Management Board of Hung Yen industrial zone, there are 336 projects concentrated in some industrial areas such as Pho Noi A, Thang Long II, Pho Noi Textile and Garment industrial zone and Minh Duc. These projects come from 17 different countries and territories with the total registered capital of US\$ 3047 million, of which the investment capital for the infrastructure of Thang Long II industrial area is US\$ 123 million and US\$ 2,924 for secondary investment projects. With 107 projects and total registered capital of US\$ 2170 millions, Japan is considered as the countries contributing the most projects and largest investment registered capital accounting for 56.9% of total projects 71.2% of total registered capital; Korea was ranked as second position with 37 projects and 412.5 million US dollars, accounting for 19.68% of total projects and 13.53% of total registered capital.

The main investment fields of FDI projects in industrial zones in Hung Yen are manufacturing and machinery & equipment assembling; mechanical industry, equipment manufacturing industry, electronic components, informatics; producing animal feed industry; Textile industry; Producing aircraft, ships, cars components industry; producing plastic products and plastic components industry; Producing building materials; trading infrastructure and leasing factory, etc.



From the real status mentioned above, it is necessary to conduct an intensive research by the qualitative and quantitative method to find out factors influencing FDI in Vietnam as well as in Hung Yen province in order to propose some policy suggestions to increase the investment attraction in the province.

LITERATURE REVIEW

According to the World Trade Organization (WTO), Foreign Direct Investment (FDI) occurs when an investor based in one country (the home country) acquires an asset in another country (the host country) with the intent to control that asset. The control is what distinguishes FDI from portfolio investment in foreign stocks, bonds and other financial instruments. In most instances, both the investor and the asset controlled in host country are business firms.

According to the International Monetary Fund (IMF, 1993): "Foreign direct investment (FDI) is an investment undertaken to establish long-term economic relationships with a business operating in the territory of another economy which is different from the economy of investor-country, the purpose of the investor is to gain real control over the business".

Factors that affect FDI attraction

According to Dunning (1977), a company makes Foreign Direct Investment when it meets following three conditions: (i) enterprises must have advantages over other enterprises (in terms of scale, technology, marketing network and ability to access capital at low-interest rates); (ii) internalisation (the use of these advantages within firms is more profitable than selling or leasing to other firms); (iii) production in the home country is less costly than that in the host country.

The theory of investment behavior proposed by Romer (1986) and Lucas (1988) argued that investor behavior is directly influenced by (i) change in demand; (ii) interest rate; (iii) the level of financial system development; (iv) public investment; (v) human resources; (vi) other investment projects in the same industry or sector; (vii) technology development and the ability to acquire and apply technology; (viii) stability of the investment environment; (ix) procedural rules and (x) sufficient level of information.

The local marketing theory showed that the satisfaction of one firm reflects the level of satisfaction when investing in one locality which is influenced by three factors: (i) the attribute group on infrastructure; (ii) attribute group on policies, investment and business services; (iii) attributes of habitat and working environment (Lam et al., 2004, Tho and Trang, 2009, Ho, 2011).

Research hypothesis

According to Tho and Trang (2009), Ho (2011), in order to attract foreign investors investing in projects, it is necessary to make them satisfied with their investment. At the same time, the decision of the investor is influenced by eight factors: (i) investment infrastructure; (ii) investment policy; (iii) living and working environment; (iv) investment industry advantage; (v) quality of public services; (vi) local brands; (vii) human resources; (viii) Competitive input costs.

Investment infrastructure is the basic and necessary element of any company's business operations which includes basic infrastructure (such as electrical, water, transportation and land) and technical infrastructure (such as communication and banking system) (Ho, 2011). Thus, does investment infrastructure have the same impact



on the decisions of investors? Based on that, the author has proposed the first hypothesis.

H_1 : the infrastructure has the same impact on the decisions of investors.

Investment policies are expressed through local government policies on investment incentives; the dynamism of the government in supporting enterprises in administrative, legal and tax procedures; Clear and transparent policy documents and rapid deployment to enterprises so that public officials can not profit or harass companies (Ho, 2011). So, does investment policy have the same impact on the decisions of investors? Therefore the second hypothesis was:

H_2 : Investment policy has the same effect on investors' decisions.

Living and working environment are expressed in terms of culture, education, health and quality of living environment. Harmonious and reasonable cost represents a quality living environment that is suitable for both investors and workers so that they can operate effectively and permanently in the locality. (Ho, 2011). So, does the living and working environment have the same effect on the decision of the investors? The third hypothesis was:

H_3 : Living and working environment has the same impact on investors' decisions.

Investment industry advantage: Enterprise's investments in the locality aim to take advantages to the industry such as being close to the main material market for production or being close to the main consumer market, being close to the trading partners to reduce transportation costs and increasing linkage or competitiveness with key competitors to maintain their presence and market share (Ho, 2011). Therefore, do these investment industry advantages of enterprises have the same effect with the decision of investors? The fourth hypothesis was:

H_4 : Investment advantage of enterprises has the same impact on the decision of investors.

Quality of public services. If the quality of public services is good, investors can easily comply with the State's policies and save time and money when dealing with necessary administrative procedures of investment as well as production and business activities. In addition, investors will benefit from state support in areas where the State has advantages and enterprises are less able to approach themselves. In order to attract investment, it is necessary to provide investors good public services such as fast customs clearance, supporting import and export information, advertisement, industrial property and promotion (Ho, 2011). So, does the quality of public services in the locality have the same impact on the decision of the investors in that locality? The fifth hypothesis was:

H_5 : The quality of public services has the same effect on the decisions of investors.

Local brands are considered as one of the factors influencing the decisions of investors. A company decides to invest in the locality when they operate effectively in that locality. An enterprise can be considered to be effective when their goals are achieved as desired, in which the two most important goals are the growth of revenue and profits. Investors often trust local brands because they can save on conducting many market researches and avoid risk (Ho, 2011). So, does local brand have the same impact on the decisions of investors? The sixth hypothesis was:

H_6 : Local brands have the same impact on the decisions of investors.

Human resources is important factor that a business must consider when deciding whether to invest in the locality or not. The abundant and cheap human resources are attractive factors to attract enterprises with low technology level and labor intensive; skilled and skilled workers are well suited for industrial production lines; especially,



labor in the field of management and technical labor with good foreign language skills is very suitable for working for foreign investment enterprises (Ho, 2011). Thus, a locality with abundant and diversified human resources is attractive to investment firms and this factor has the same effect on investors' decisions. The seventh hypothesis was:

H₇: Human resources have the same effect on the decisions of investors.

Competitive input costs are the basic factor directly related to the investment efficiency of an enterprise. Enterprises can increase their competitiveness or seek higher profits when their input costs are low. Competitive input costs are not only cheap price but also need to be good quality of the service (Ho, 2011). Thus, does competitive input cost have the same impact on the decisions of investors? The eighth hypothesis was:

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

The decision of investor. Investors will invest in business activities that they feel favorable and develop as desired. Efficiency in investment activities also reflects the level of investment decisions of investors. Investors who decide to invest in a locality usually tend to continue investing in long-term in that locality as well as introduce it to other investors (Ho, 2011).

METHODOLOGY

The author used a combination of qualitative and quantitative research methods. Qualitative research was conducted to adjust the observational variables which used to measure research concepts to suit the realities of industrial zones in Hung Yen province. Qualitative research was conducted through group discussions with 10 respondents, including 08 foreign investors (02 respondents in Pho Noi A Industrial Zone, 02 respondents in Thang Long Industrial Zone, 02 respondents in Pho Noi Textile Industrial Zone and 02 respondents in Minh Duc Industrial Zone) and 02 managers of industrial zones in the province.

The study was also conducted with 400 respondents being FDI enterprises (there are 365 valid answered) in Pho Noi A industrial zone, Thang Long II, Pho Noi Textile and Garment Company and Minh Duc industrial zone from June 2017 to August 2017 by convenient sampling method that is direct interview technique through a questionnaire. The quantitative study was conducted for the purpose of model testing and research hypotheses.

In this study, the author used models and scales from the previous studies of Tho and Trang (2009) and Ho (2011).

EMPIRICAL RESULTS

Results of the reliability test of the scale through Cronbach's Alpha coefficient

In reliability test of research concepts through the Cronbach's Alpha coefficient, the conditions to achieve reliability is that Cronbach's Alpha is greater than 0.6 and the total variable is greater than 0.3 (Nunnally and Burnstein, 1994). The results show that only variable observation QPS3 (Thủ tục hải quan nhanh gọn) has correlation coefficient between variables with total less than 0.3 thus should be excluded, other observable variables satisfy the requirement for reliability testing through the Cronbach's Alpha coefficient as following table 1.



Table 1: Results of reliability test of research concepts

Variables	Average value excluding variable	Variance excluding variable	Correlation coefficient with total	Cronbach's Alpha excluding variable
Investment Infrastructure (ININ): Cronbach's Alpha = 0,801				
ININ1: Convenient transportation (time and cost)	17,9699	5,853	0,536	0,778
ININ2: The power supply system meets the requirements	18,1123	6,199	0,543	0,774
ININ3: Water supply and drainage system is adequate	18,0767	6,456	0,573	0,770
ININ4: Convenient communication (telephone, internet, etc)	18,1397	6,099	0,609	0,760
ININ5: The ground meets the requirements	17,9671	6,362	0,527	0,778
ININ6: The banking system meets the requirements	17,9945	5,720	0,585	0,766
Investment policy (INPO): Cronbach's Alpha = 0,822				
INPO1: Attractive investment incentive policies	13,8959	5,165	0,614	0,794
INPO2: Tariffs clear (tax service employee working in a fair manner)	14,4219	4,008	0,676	0,774
INPO3: Legal documents are rapidly deployed to the company	13,9890	5,099	0,631	0,790
INPO4: Local leaders are active in supporting businesses	13,8822	4,769	0,605	0,791
INPO5: Enterprises will still invest if the locals do not have attractive policies	13,9041	4,268	0,627	0,788
Living and Working Environment (LWE): Cronbach's Alpha = 0,842				
LWE1: Disagreements between workers and enterprises are satisfactorily resolved	18,7562	9,833	0,578	0,826
LWE2: The school system meets the requirements	18,9452	9,085	0,570	0,826
LWE3: The health system meets the needs	19,0137	9,689	0,573	0,826
LWE4: Living environment is not polluted	18,9726	8,565	0,642	0,815
LWE5: Interesting entertainment spots	18,8192	8,819	0,645	0,814
LWE6: Friendly people	18,8247	9,260	0,590	0,823
LWE7: The cost of living is reasonable	18,9315	9,053	0,608	0,820
Investment Industry Advantage (IIA) Cronbach's Alpha = 0,844				
IIA1: Convenience in supplying main materials for production	10,2192	3,260	0,700	0,791
IIA2: Convenient for the main consumer markets	10,0740	3,635	0,665	0,809
IIA3: Close to major trading partners (distributors or suppliers)	10,1534	3,399	0,679	0,800
IIA4: Market competition with major competitors	10,0164	3,154	0,678	0,803
Quality of Public Services (QPS): Cronbach's Alpha = 706				
QPS1: Simple and fast in administrative procedures	6,3397	1,110	0,559	0,580
QPS2: Local government attentive support when companies need	6,2082	0,913	0,510	0,660
QPS4: Trade promotion centers have good support for businesses	6,2466	1,175	0,531	0,617
Local Brands (LB): Cronbach's Alpha = 0,839				
LB1: I invest here simply because I want to invest in Hung Yen	10,0521	3,170	0,665	0,798
LB2: I see many people investing successfully in Hung Yen and I want to be like them	9,8904	3,235	0,683	0,789
LB3: Hung Yen is an impressive local brand	9,8110	3,401	0,677	0,794
LB4: I think Hung Yen is the destination of investors	9,9452	3,244	0,660	0,800
Human Resources (HR): Cronbach's Alpha = 0,792				
HR1: Vocational training schools meet the requirements of enterprises	18,5041	5,965	0,509	0,770
HR2: Source of unskilled labor is abundant	18,2493	5,523	0,539	0,763
HR3: Labor is highly disciplined	18,0932	5,892	0,511	0,769
HR4: Ability to acquire and apply technology of labor is very well	18,2219	5,492	0,578	0,753
HR5: The company has no language barriers	18,2082	5,391	0,537	0,765
HR6: Easily recruit good local managers	18,2027	5,354	0,605	0,747



Competitive Input Costs (CIC): Cronbach's Alpha = 0,803				
CIC1: Low land rental	10,8795	2,947	0,636	0,745
CIC2: Cheap labor cost	10,9096	3,044	0,632	0,747
CIC3: Freight, water and electricity prices are resonable	10,8712	3,222	0,595	0,765
CIC4: Prices of communication services is competitive	10,7616	2,951	0,611	0,758
Decision of Investor (DI): Cronbach's Alpha = 0,826				
DI1: I think the company's revenue will grow as expected	14,6000	3,427	0,658	0,780
DI 2: I think the profit of the company will be as expected	14,5425	3,232	0,647	0,782
DI 3: I think our company will continue to invest in long term in Hung Yen	14,3699	3,882	0,545	0,812
DI 4: I will introduce Hung Yen to other investors	14,4795	3,250	0,631	0,787
DI 5: In general, I think our company is very satisfied with the investment in Hung Yen	14,7644	3,093	0,643	0,785

Results of exploratory factor analysis

Table 2. Results of the EFA analysis

Variables	Factor affecting							
	1	2	3	4	5	6	7	8
LWE5	0,752							
LWE4	0,744							
LWE7	0,724							
LWE6	0,714							
LWE1	0,705							
LWE3	0,699							
LWE2	0,691							
ININ4		0,755						
ININ6		0,733						
ININ3		0,720						
ININ2		0,690						
ININ5		0,684						
ININ1		0,683						
INPO2			0,811					
INPO5			0,766					
INPO3			0,765					
INPO1			0,752					
INPO4			0,751					
HR6				0,751				
HR4				0,731				
HR5				0,701				
HR2				0,690				
HR1				0,665				
HR3				0,659				
IIA1					0,835			
IIA3					0,820			
IIA4					0,813			
IIA2					0,808			
LB2						0,825		
LB3						0,819		
LB1						0,812		
LB4						0,803		
CIC1							0,812	
CIC2							0,789	



CIC4							0,777	
CIC3							0,774	
QPS1								0,812
QPS4								0,785
QPS2								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						

The results of the EFA analysis show that 39 variables used to measure research concepts after EFA analyzing, it was extracted into eight factors; 05 variables used to measure the investment decision of the investor are extracted into one factor (Table 2)

Table 3. EFA results for the investor's decision

Variables	Factors	
	1	
DI1	0,796	
DI2	0,787	
DI5	0,782	
DI4	0,774	
DI3	0,701	
Eigenvalue	2,962	
% of variance	59,252	
KMO	0,852	
Bartlett's Test	Chi square	595,648
	Df	10
	Sig.	0,000

Results of model testing and research hypotheses

Table 4. Summary model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0,801 ^a	0,642	0,634	0,603

^a Predictors: (Constant), QPS, CIC, LB, IIA, HR, INPO, ININ, LWE

The test results for the level of explanation show that adjusted R square is 0.634 (in Table 4). As such, 63.5% of the change in investor decisions is explained by independent variables.

Table 5. ANOVA^a 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), QPS, CIC, LB, IIA, HR, INPO, ININ, LWE

The results of the test for compliance show that Sig significance level is less than 0.05. Therefore, it can be concluded that the given model corresponds to the data collected. In other words, these independent variables have a linear relationship with dependent variables with a significance level of 5% and a confidence level of 95% (Table 5).

Results of the hypotheses test showed that 08 hypotheses were accepted at

significance level of 5% and a confidence level of 95% (Table 6).

Table 6. Results of hypothesis testing

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics		
	B	Std. Error	Beta			Tolerance	VIF	
1	(Constant)	-1.205E-016	0,032		0,000	1,000		
	LWE	0,172	0,032	0,172	5,391	0,000	1,000	1,000
	ININ	0,483	0,032	0,483	15,220	0,000	1,000	1,000
	INPO	0,207	0,032	0,207	6,501	0,000	1,000	1,000
	HR	0,404	0,032	0,404	12,735	0,000	1,000	1,000
	IIA	0,229	0,032	0,229	7,203	0,000	1,000	1,000
	LB	0,216	0,032	0,216	6,792	0,000	1,000	1,000
	CIC	0,144	0,032	0,144	4,507	0,000	1,000	1,000
	QPS	0,242	0,032	0,242	7,624	0,000	1,000	1,000

^a Dependent Variable: SAT

From the above analysis, there are regression equations as follows:

$$DI = 0,172 * LWE + 0,483 * ININ + 0,207 * INPO + 0,404 * HR + 0,229 * IIA + 0,216 * LB + 0,144 * CIC + 0,242 * QPS$$

SUGGESTION

By using the theory of investment behavior of Romer (1986), Lucas (1988), this research has developed and expanded to analyze factors influencing FDI attraction in industrial zones in Hung Yen province. The result shows that eight factors affecting the decision of the investor are (1) living and working environment (LWE); (2) investment infrastructure (ININ); (3) investment policy (INPO); (4) human resources (HR); (5) investment industry advantage (IIA); (6) local brands (LB); (7) competitive input costs (CIC) và (8) quality of public services (QPS). In particular, investment infrastructure and human resources are the two most influential factors to the satisfaction of investors. Results of the hypothesis testing by the regression model have also shown that factors influencing FDI attraction in the industrial zones in Hung Yen province are in line with the original research hypothesis.

Based on the above results, the author proposed some recommendations on solutions to further improve the investment environment in Hung Yen province as follows:

Firstly, the results show that investment infrastructure is the priority factor that investors consider. Investors expect that the transportation system in industrial zones, as well as the transportation system from industrial zones to ports and inter-provincial transport systems for import-export activities of FDI enterprises must be highly invested and connected. Electricity network, water supply and drainage system in industrial zones need to be upgraded. There should be support in the construction of industrial waste treatment plants.

Secondly, the results also showed that human resources is secondary the secondary concern when investors investing in industrial zones in Hung Yen province. Therefore, it is necessary to improve the quality of human resources in order to attract more investors through activities such as: contributing ideas to renew training program linked to the reality of production and business activities at universities and colleges in the province; encouraging enterprises to create opportunities for students to practice their profession to reach the working environment and technology; issuing more policies to connect enterprises with vocational training schools in the province; providing foreign



language training courses for laborers to help them access to modern materials and technologies; there are incentives for personal income tax for the staff working in the local to attract high-quality labors.

Thirdly, investors are very interested in the quality of public services to support investment promotion and activities in the investment process. This will require reforming the administrative procedures so that it is simpler, more convenient and faster. In particular, it is necessary to shorten the appraisal time and authorization for investors. Local authorities need support when companies request (through the one-stop shop mechanism) avoiding the case where investors have to meet many troubles. Promote the establishment and operation of investment promotion centers in order to support the best for businesses.

In addition, in order to increase investment attraction, it is necessary to prioritize investment projects with advanced technologies that can contribute much to the budget, energy saving and environmentally friendly; value added projects and high competitiveness. Government agencies should continue propaganda and dissemination of the law on environmental protection for industrial zones in the province. Review, amend and supplement the working regulations of the division of receiving and returning results of the Management Board of industrial zones, review of administrative procedures in the field of investment; upgrading software for public services; extend online public service level III to administrative procedures; put into operation the information channel in English on the Electronic Portal of the Management Board of Industrial Zones.

CONCLUSION

Due to limited time and budget, this study only focused on investors in Pho Noi A, Thang Long II, Pho Noi Textile and Garment industrial zone and Minh Duc with 365 valid answers by convenient sampling method. Therefore, the representative sample of the sample and the verification of the reliability of the research scales are limited

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