

ANALYZING FACTORS AFFECTING THE FDI CAPITAL ATTRACTION SUPPORTING INDUSTRIES IN DONG NAI PROVINCE

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ABSTRACT

This paper, entitled "Analyzing factors affecting the FDI capital attraction supporting industries in Dong Nai province" conducted during the period from 32013 until 92015. In Dong Nai province, there are more than 1100 FDI enterprises. I had surveyed 250 FDI enterprises (125 FDI enterprises in Bien Hoa city, 50 FDI enterprises in Nhon Trach district, 25 FDI enterprises in Trang Bom district and 50 FDI enterprises in Vinh Cau district). After data are collected, reliable scale tested with Cranach's alpha index, and EFA (Exploratory Factor Analysis), which draws from the official scale. The Exploratory Factor Analysis (EFA) results showed that there were five factors that included Human resource training policies; Infrastructure system policies; Dong Nai planning policies; Policies for administration of Tax and Political and economic environment with significance level 5 %. In addition, the research result processed from SPSS 20.0 software. And Test KMO and Bartlett two tests that indicated the suitability of the data for structure detection. At the same time, the result was also a scientific evidence and important for researchers, and policy makers who apply them for improving the FDI capital attraction supporting industries of Dong Nai province in the future.

The main objectives of this study were to:

- Identify the various factors of the FDI capital attraction supporting industries of Dong Nai province.
- Analyzes and test the impact of these factors affecting the FDI capital attraction supporting industries of Dong Nai province.

Keywords: VFU, FDI, capital, FDI capital attraction and Dong Nai province.

Introduction

Vietnam is a developing country and population is young. The FDI inflows into Vietnam come from more developed Asian countries, including Japan, Singapore and Korea. We see further evidence of Vietnam's competitiveness in its ability to attract FDI – which at an average rate of 8.3% of GDP in the last five years (2008-2012) is among the highest rates in the whole of the global frontier and emerging Asian space.

Some of the sectors that have seen significant FDI inflows in recent years include banks, property and infrastructure. However, a shift is underway, with a rise in FDI into manufacturing, retail and technology, among others. Flows are becoming less speculative in nature than in some instances in the past, and they do more to add value and create jobs. According to the Foreign Investment Agency (FIA), the total new foreign direct investment (FDI) commitment to Vietnam reached \$21.6 billion in 2013, up 54.5 per cent year-on-year. However, did not yet include the expansion of investment of the British firm Technostar at Vung Ro petrochemical and oil refinery complex in the central province of Phu Yen. The company increased its investment to \$3.18 billion from \$1.7 billion, which would bring the total new FDI commitment in Vietnam to \$23 billion.

The FDI disbursement sum in 2013 also witnessed a strong recovery with a positive rebound of 9.9 per cent, reaching \$11.5 billion, in comparison with a slide of 4.9 per cent in 2012. "We tried to improve the investment climate in 2013 and this is our position at the year's end," said FIA director Do Nhat Hoang, adding that this positive result offered a bright outlook for FDI to Vietnam in 2014.

In addition, Dong Nai province had the index of industrial production (IIP) rose 7.47% over the same period. - The production value of agriculture, forestry and fishery products reached 18806.5 billion, up 3.5% over the same period of 2013. Up to date 9/10/2013 total acreage crop is 38 119 ha, an increase of 1.4% over the same period and the total cultivated area is 72 236 ha of summer-fall, by 96.4% over the same period; crop sown area is 61,440 ha, by 99.4% over the same period. The researcher based on the strategy for economic and social development 2015-2020 and the orientation for economic and social development 2010-2020 of Vietnam, the researcher chosen a study for the paper.

Literature review

Foreign direct investment (FDI) enterprises have played an important role in boosting Vietnam economic growth and FDI enterprises have been an important source that directly participated in and promoted the creation of several industrial sectors with a high demand for technology and added-value products, such as machinery manufacturing, energy, computers and telephones.

Besides, FDI enterprises have also played an important part in the country's export and import activities over the past years, they said, adding the FDI sector contributed towards ensuring the supply of foreign exchange as well as the national balance of payments.

Since the Law on Foreign Investment issued in 1987, FDI capital has had great impact on Vietnam economy by mobilizing capital for development and promoting economic development. FDI enterprises have also contributed towards creating conditions for the transfer of technology, generating jobs for the local people and accelerating the country's global integration.

In addition, several products produced by foreign-invested businesses have established themselves firmly in international markets, such as telephones, electronic components and garments and textiles. FDI enterprises have helped to strengthen the linkage between foreign and domestic businesses, and assisted Vietnam economy to integrate deeper with the global economy.

The government and authorized agencies of ten created conditions and improved the investment environment to draw more foreign investment. However, a number of participants pointed out the shortcomings of FDI businesses, such as slow transfer of technology for domestic partners, environmental pollution caused by some FDI projects or tax evasion by some businesses, causing public concern, while affecting the investment environment of Vietnam.

Methods of research

This research consists of two phases: Phase one is a preliminary study and the second phase is a formal and more comprehensive study. The study is done by qualitative method. The research will be done by formal quantitative methods. Unit of analysis is a FDI enterprise. Study subjects are FDI enterprises in Dong Nai province.

After preliminary investigations, formal research is done by using quantitative methods questionnaire survey of 250 managers of 250 FDI enterprises in Dong Nai province The Data tested measurement models, model and test research hypotheses.

The Data collected were tested by the reliability index excluding variables with correlation coefficients lower < 0.30 and variable coefficient Cronbach's alpha < 0.60), factor analysis explored remove the variable low load factor < 0.50. The Data was processed by SPSS 20.0 version. Multiple linear regressions were used in my research. Regression function following:

$$Y = \ \beta_0 + \ \beta_1 ^* X_1 + \beta_2 ^* X_2 + \beta_3 ^* X_3 + \beta_4 ^* X_4 + \beta_5 ^* X_5$$

Y: the FDI capital attraction supporting industries

 β_0 - β_5 : Regression coefficients; X_1 - X_5 : Factors affecting the FDI capital attraction supporting industries.

 X_1 : Human resource training policies; X_2 : Infrastructure system policies; X_3 : Dong Nai planning policies; X_4 : Policies for administration of Tax and X_5 : Political and economic environment.

Research results

Overview about the Dong Nai province

Dong Nai province located in the Southern key economic zone. Dong Nai Province has 11 administrative units to 171 units of communes, wards and towns include Bien Hoa city is the center of politics, economy and culture of the province, Long Khanh town and has 9 district: the Long Thanh, Nhon Trach, Vinh Cuu, Trang Bom, Thong Nhat, Dinh Quan, Tan Phu, Cam, Xuan Loc. Dong Nai natural area 5.907,24 km2 and a population of 2.72 million people (2012) of which: urban population of 33.94%, 66.06% in rural areas.

D	Administrative	Wards,	Area (Km ²)	Averade
		communes		population
		and town		(Thous.
				persons)
1	Bien Hoa city	30	265,55	867,85
2	Long Khanh	15	191,86	136,98
	Township			
3	Long Thanh district	15	430,66	210,32
4	Nhon Trach district	12	410,78	184,21
5	Vinh Cuu district	12	1.095,71	138,06
6	Trang Bom district	17	323,69	276,04
7	Thong Nhat district	10	247,24	157,98
8	Cam My district	13	468,55	149,86
9	Xuan Loc district	15	727,20	228,13
10	Dinh Quan district	14	971,09	206,87
11	Tan Phu district	18	776,93	164,54
Total		171	5.907,24	2.720,82

Table 1: Administrative units, area and population in 2012

(Source: Dong Nai Statistics Office)

Table 1 showed that the population of Dong Nai province is 2.720,82 Thousand of persons in 2012.

Dong Nai Province on the east, north-east of Lam Dong Province, northwestern provinces of Binh Duong and Binh Phuoc province, south of Ba Ria - Vung Tau province, west of Ho Chi Minh City, located in the middle the economic center of the South, is the economic development province of Vietnam's most dynamic.

Dong Nai is youthful population pyramid, the population of working age is 77.26 % (about 2.102 million workers), and the labor force is relatively more educated, familiar with the style industry, diligence and progressive. Labor force of working is 1.593 (million, Persons), rate is 75.79%. The employment rate in the total number of trained workers is working around 53 %. In 2012, the total number of full-time students are enrolled at the provincial level is 523 500 general education students, The University students and colleges at the rate of 220/thousand people. The number of schools, vocational training units in the province on the basis of 100, including 4 universities and 8 colleges, 16 Vocational School, 73 Central and vocational units. Many new schools are being established to meet the demands of high-quality human society and business.

Descriptive Statistics for the FDI capital attraction supporting industries in Dong Nai province

Code	Human resource training policies	Ν	Min	Max	Mean	S.E
HRT1	Human Resource Planning in Dong Nai province is sufficient to needs for the FDI enterprises	234	1	5	3.81	.069
HRT2	Human Resource Planning is the task of business priorities of FDI enterprises in Dong Nai	234	2	5	3.95	.062
HRT3	Capacity of forecasting labor demand and supply is good for business in Dong Nai	234	2	5	3.87	.064
HRT4	The training facilities, labor supply base has good solutions for human resources development in Dong Nai province	234	1	5	3.42	.073
HRT5	Universities have the best solutions for human resources development in Dong Nai province	234	2	5	3.68	.084
HRT6	Dong Nai Human resources meet the FDI enterprpses' demand such as English, soflt skills.	234	1	5	3.38	.089
HRT7	There have been good policy from the state agencies in the development of human resources for Dong Nai province	234	1	5	3.38	.089

Table 2: Questions for the FDI capital attraction supporting industries

Code	Infrastructure system policies	Ν	Min	Max	Mean	S.E
ISP1	The ability of the service is to meet ports, bridges and airports in Dong Nai province	234	1	5	3.10	.067
ISP2	The system of inter-provincial road is good for FDI enterprises and the wastewater treatment system of industrial parks is convenience for FDI enterprises in Dong Nai province	234	1	5	3.06	.063
ISP3	Dong Nai other policies such as credit, Finance, Commerce and Science & technology are very good for FDI enterprises.	234	1	5	3.07	.064
ISP4	The garbage collection system is good for FDI enterprises in Dong Nai province		1	5	3.05	.064
ISP5	The infrastructure services of electricity, water is good for FDI enterprises in Dong Nai province	234	1	5	3.05	.066
ISP6	The phone service and internet infrastructure is good for FDI enterprises in Dong Nai province	234	1	5	3.05	.065
	Dong Nai planning policies	Ν	Min	Max	Mean	S.E
DPP1	The planning of industrial parks in Dong Nai province has actually science and sustainable develpment	234	1	5	3.27	.062
DPP2	The planning of industrial parks are to meet the business development of FDI enterproses in Dong Nai province	234	1	5	3.32	.064

	There have been good policies from the					
DPP3	state agencies in the development of FDI		1	5	3.33	.061
	enterprises in Dong Nai province					
	The implementation of the policy in fact					
DPP4	is very convenient and useful for FDI	234	1	5	3.32	.061
	enterprpses in Dong Nai province					
	FDI Enterprises have received good					
DDD*	supports from the state's policies on	094	ч	~	9.00	009
DPP5	business development in Dong Nai	234	1	Э	3.26	.063
	province					
Code	Policies for administration of Tax					
TD 4 / [7]	The administrative procedures are in the	09.4		~	2.00	070
PATI	field of simple and straightforward tax	234	1	Э	3.00	.058
	The "one stop model" in resolving the					
тр а лто	administrative procedures applied in the	004	-1	5	9.03	104
PATZ	tax offices operate effectively,	204	1	9	2.90	.104
	facilitating the FDI enterprise					
	The tax officials are enthusiastically					
PAT3	supported and addressed any tax issues	234	1	5	2.84	.097
	for the enterprises					
	The enterprises do not have to spend					
PAT4	additional expenses when informal		1	5	2.83	.095
	working with tax officials					
Code	Political and economic environment					
	The political environment of Dong Nai					
PEE1	is very good for developing business	234	1	5	3.46	.059
	operations of FDI enterprises					
	Stable economic environment and good					
PEE2	opportunities are for business	234	1	5	3.56	.062
	development of FDI enterprises					
PEE3	Dong Nai GDP and Viet Nam GDP is	234	1	5	3 4 9	062
	growing annual	NUT	-	Ð	9.19	
PEE4	Inflation of Viet Nam is low and young	234	1	5	3.41	.060
P1 0 1 04	population		÷			

Code	General assessment of FDI capital					
Coue	attraction					
	Your enterprise is completely agreement					
GAFCA1	with good investment policies, clearance	234	2	5	3.38	.037
	in Dong Nai province					
	Your enterprise is completely agreement					
GAFCA2	with the high quality of human resource	234	1	5	2.39	.038
	and Infrastructure in Dong Nai province					
	Your enterprise is completely agreement					
GAFCA3	with good political, economic	934	9	б	4 91	044
	environment in Dong Nai province and	~9 4	2	0	4.91	.044
	continues to invest capital in the future.					

(Source: The researcher's collecting data and SPSS)

Table 2 showed that there were 29 items processed, the mean is around 3 point. This showed that the result of the descriptive statistics from items that had 234 FDI enterprises processed in Dong Nai province interviewed from 3/2013 until 9/2015.

Exploratory Factor Analysis for the FDI capital attraction supporting industries

Test KMO and Bartlett shows two tests that indicate the suitability of your data for structure detection. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy is a statistic that indicates the proportion of variance in your variables that might be caused by underlying factors. In addition, the small values (less than 0.05) of the significance level indicate that a factor analysis may be useful with your data.

Com.		Initial Eigenvalues		Extra	action Sum	Rotation	
					Loadiı	Sums of	
						Squared	
							Loadings ^a
	Total	% of	Cumulative %	Total	% of	Cumulative %	Total
		Variance			Variance		
1	7.093	27.279	27.279	7.093	27.279	27.279	5.823
2	5.196	19.983	47.262	5.196	19.983	47.262	5.724
3	4.050	15.577	62.839	4.050	15.577	62.839	4.568
4	2.812	10.817	73.656	2.812	10.817	73.656	3.521
5	1.693	6.512	80.169	1.693	6.512	80.169	4.452
6	.816	3.140	83.308				
7	.765	2.942	86.250				
8	.670	2.576	88.827				
9	.485	1.866	90.692				
10	.435	1.673	92.366				
11	.384	1.478	93.843				
12	.233	.895	94.738				
13	.217	.835	95.573				
14	.199	.767	96.340				
15	.172	.660	97.001				
16	.150	.576	97.576				
17	.146	.563	98.139				
18	.105	.402	98.541				
19	.095	.365	98.907				
20	.086	.329	99.236				
21	.073	.281	99.517				
22	.047	.182	99.699				
23	.038	.145	99.844				
24	.019	.074	99.918				
25	.016	.062	99.980				
26	.005	.020	100.000				

Total Variance Explained

(Source: The researcher's collecting data and SPSS)

Table 3 showed that Kaiser-Meyer-Olkin Measure of Sampling Adequacy was statistically significant and high data reliability (KMO = 0.799 > 0.6). This result is very good for data analysis. Table 3 showed that Cumulative % was statistically significant and high data reliability is 80.169 % (> 60 %).

Structure Matrix for factors of the FDI capital attraction supporting industries

Code	Component							
	1	2	3	4	5			
HRT o	.957							
≈ HRT	.914							
э HRT с	.901							
0 HRT 5	.873							
y HRT 7	.863							
HRT 1	.828							
HRT 4	.815							
DPP1		.993						
DPP5		.985						
DPP4		.949						
DPP3		.914						
DPP2		.911						
ISP4			.907					
ISP2			.894					
ISP5			.878					
ISP3			.842					
ISP6			.827					
ISP1			.785					
i l		I	I					

 Table 4: Structure Matrix for factors of the FDI capital attraction supporting industries

 Pattern Matrix^a

PAT3	.938
PAT4	.926
PAT2	.918
PAT1	.733
PEE3	.889
PEE2	.869
PEE4	.797
PEE1	.794

(Source: The researcher's collecting data and SPSS)

Table 4 showed that structure matrix for the FDI capital attraction supporting industries had 5 Components. All of items is higher 0.5. This data is very good for researching.

Component 1 (X_1) is Human resource training policies: HRT2, HRT3, HRT6, HRT5, HRT7, HRT1 and HRT4.

Component $2(X_2)$ is Dong Nai planning policies: DPP1, DPP5, DPP4, DPP3 and DPP2.

Component 3 (X₃) is Infrastructure system policies: ISP4, ISP2, ISP5, ISP3, ISP6 and ISP1.

Component 4 (X₄) is Policies for administration of Tax: PAT3, PAT4, PAT2 and PAT1.

Component 5 (X₅) is Political and economic environment: PEE3, PEE2, PEE4 and PEE1.

Analysis factors of the FDI capital attraction supporting industries

Table 5: Regression Analysis factors affecting the FDI capital attraction supporting

industries

				U .	
Mode	R	R Square	Adjusted	Std. Error of	Durbin-
1			R Square	the Estimate	Watson
1	$.772^{\mathrm{a}}$.595	.586	.36826	2.038

Model Summary^b

a. Predictors: (Constant), X₅, X₂, X₄, X₁, X₃

b. Dependent Variable: Y

ANOVA^a

Mode		Sum of	df	Mean Square	\mathbf{F}	Sig.
		Squares				
	Regression	45.497	5	9.099	67.096	.000 ^b
1	Residual	30.921	228	.136		
	Total	76.418	233			

a. Dependent Variable: Y

b. Predictors: (Constant), X₅, X₂, X₄, X₁, X₃

Coefficients^a

Model	Unstandardized S		Standardized	\mathbf{t}	Sig.	Collinea	rity
	Co	oefficients	Coefficients			Statisti	ics
	В	Std. Error	Beta			Tolerance	VIF
(Constant)	.218	.183		1.189	.236		
\mathbf{X}_{1}	.214	.025	.381	8.674	.000	.920	1.086
\mathbf{X}_2	.070	.029	.104	2.429	.016	.971	1.030
X_3	.165	.032	.263	5.203	.000	.692	1.445
\mathbf{X}_4	.175	.020	.372	8.572	.000	.940	1.064
${ m X}_5$.314	.036	.440	8.684	.000	.691	1.447

a. Dependent Variable: Y: the FDI capital attraction supporting industries

(Source: The researcher's collecting data and SPSS)

Table 5 showed that Adjusted R^2 coefficient = 0.586 means that this model explained 58.6 % variation in the FDI capital attraction supporting industries in Dong Nai province.

Conclusion

Research results showed that all t value > 2 was statistically significant and high data reliability. In addition, the regression coefficients were positive. This showed that the effects of independent variables in the same direction with the FDI capital attraction supporting industries in Dong Nai province. Variance Inflation Factor (VIF) value was 1 (VIF < 10). We have: X_1 , X_2 , X_3 , X_4 , X_5 with VIF < 10 and Sig < 0.05.

REFERENCES:

- 1. Airasian, P. W. (2001). *Classroom Assessment: Concepts and Applications*. New York: McGraw-Hill.
- 2. Aitkin, M., Bennett, N. & Hesketh, J. (1981). *Teaching styles and pupil progress: a reanalysis.* British Journal Educational Psychology.
- Blomstrom, M., A. Kokko and M. Zejan (2000). Foreign Direct Investment. St. Martins Press, New York.
- Central Institute for Economic Management (2010). Viet Nam's Economy in 2009. Hanoi. Finance Publishing House.
- Central Institute for Economic Management (2011). Viet Nam's Economy in 2010. Hanoi. Finance Publishing House.
- 6. Corbett. (2003). Social Research: Theory, Methods and Techniques. London, Sage.
- Denscombe, M. (1998). The Good Research Guide. Buckingham, Open University Press.

- 8. Dillman, D.A (2000). *Mail and Internet Surveys*. The Tailored Design Method, New York, Wiley.
- 9. Dochartaigh, N. O. (2002). The Internet Research Handbook: A Practical Guide for customers and Researchers in The Social Sciences. London, Sage.
- 10. Dymowski, E.V. and P.H. Saake (1992). Strategic planning. Internal Auditor.
- Emory, C. William (1976). Business Research Methods. Illinois: Richard D. Irwin, Inc. Homewood.
- 12. Fink, A. (2003). How to Ask Survey Questions. Thousand Oaks, CA, Sage.
- Freeman, Nick J. (2001). Understanding the Decline in Foreign Investor Sentiment towards Vietnam during the 1990s. Asia Pacific Business Review, London.
- 14. General Statistics Office (2011). *Statistical Year book of Viet Nam 2010.* Statistical Publishing House, Ha Noi.
- Glock, Charles Y. (1967). Survey Research in the Social Sciences. New York: Russell Sage Foundation.