

DETERMINANTS OF FOREIGN DIRECT INVESTMENT IN LESS DEVELOPED COUNTRIES: A FACTOR ANALYSIS APPROACH

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ABSTRACT

Using factor analysis this study explores factors influencing the choice of foreign direct investment in less developed countries. Results show significant relationships between foreign direct investment and institutional quality, infrastructure development, market size, availability of natural resources, and quality of human capital. However, the study found no significant relationship between foreign direct investment inflows and economic stability.

Key Words: Foreign direct Investment, less developed countries, factor analysis

INTRODUCTION

Although in the economics and business literature, there is a large body of theory and research to determine the main factors influencing the choice of foreign direct investment (FDI) decisions, most of these studies have been confined to the classical theories of comparative advantage to build models for determining FDI location. It is only very recent that researchers have extended the variables in their models beyond the traditional factor endowments distinguishing hard components or physical factors such as natural resources, energy and infrastructure from soft components (Li and Li, 1999) or “created assets” (Narula and Dunning, 2000) such as, knowledge based assets, economic, legal, political and cultural factors. On the other hand, recognizing the benefits of FDI such as transfer of technology, augmenting domestic savings and investment, increasing competition, increasing exports, foreign exchange earnings, skill development, and other spillover many of the Less Developed Countries (LDC) have carried out institutional reforms with the specific intention of attracting foreign direct investment. However, very few of the existing empirical studies on FDI have incorporated these institutional reforms into their models. Even for empirical

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studies incorporating institutional measures, their methods have mainly be confined to using single indicators set by theory rather than exploring the data to determine the underlying factors. The main purpose of this paper is to begin filling in this gap by incorporating institutional measures to determine foreign direct investment inflows into less developed countries and use factor analysis to determine the underlying factors influencing FDI in less developed economies.

THEORY AND HYPOTHESES

Even though the theory of FDI location has been well argued (Dunning 1993, 1998) empirical evidence has not yet been able to fully demonstrate why foreign firms locate subsidiaries in developing countries. Most of the empirical studies in this area have concentrated on the developed economies (Pan 2003). By comparison there is very little empirical research on what drives FDI into particular locations in the less developed countries (LDCs). Existing empirical studies have come with a wide variety of factors each study with its own set. The most commonly referred determinants include natural resources, infrastructure, market size, level of human capital development, labor cost, exchange rate, fiscal incentives, and monetary policy. Even when the same factors have been used empirical studies have found conflicting results. The relationship between FDI and gross domestic product per capita, for example, has been found negative some including Edwards (1990) and Jasperson et al. 2000 but Schneider and Frey (1985) have found it positive while studies by Loree and Guisinger (1995), Wei (2000) and Housmann and Fernandez-Arias (2000) have found no significant relationship between FDI and GDP per capita. Labor costs have been found to have a positive impact on FDI by Wheeler and Moody (1992) but Schneider and Frey (1985) have found labor costs to have a negative effect on FDI while Tsai (1994), Loree and Guisinger (1995), and Lipsey (1999) have found no significant relationship between FDI and labor costs.

It was not until the mid 1990's after Douglas North was awarded his Nobel prize in 1993 that research in international business began to address the role of institutions as an important dimension in the determinants of foreign direct investment. Institutions have been defined as formal and informal constraints on political, economic, and social interactions (North, 1990). Quality institutions provide an incentive structure that reduces uncertainty and promotes efficiency hence contributing to business performance. Recent empirical studies have found governance measures to influence FDI inflows. In a recent global review of governance, Kaufmann (2003) finds that there was a much higher correlation between FDI and governance than between FDI and macroeconomic variables. Legal and government arrangements have been found to influence corporate strategies (Oliver 1997, Peng 2000), to determine cost and attractiveness of the host economy

(Mudambi and Nayara 2002). In a study on foreign investment in China Ng and Tuan (2002) found institutional factors including legal system, government bureaucracy, corruption, and efficiency of government administration to be a major concern shared by foreign investors in the Guangdong province.

Despite successful macro-economic reforms in some developing countries, FDI figures (UNCTAD Report 2003) show that they have failed to reverse the declining trend of FDI inflows suggests that, the declining trend of FDI in some countries may be explained by factors other than economic performance. Hernandez et al. (2004) concludes that Africa's poor FDI inflow has been attributed to the regions serious governance problems. The Africa Competitiveness report of 1998 came up with similar conclusions that corruption, political stability, taxes, and poor infrastructure are the key concern for investors.

In their efforts to determine factors influencing FDI inflows into Sub-Saharan Africa, Basu and Srinivasan (2002) found that strong leadership, democracy and firm commitment to economic reform were the most important determinants. Hess (2000) also identified inefficient bureaucracy and lack of transparency among the most important barriers to FDI in Africa. Quality of institutions has also been found to be an important influence of FDI inflows in the economies of East and Central Europe (Bevan et al. 2004). In their study of US foreign direct investment outflow, Globerman and Shapiro (2002) conclude from results of their study that countries that fail to achieve a minimum threshold of effective governance are unlikely to receive any US foreign investment. Based on these previous studies we can suggest that:

H1: Less developed countries with higher quality institutions are likely to attract greater FDI inflows.

H1a: Less developed countries that adhere to the rule of law are likely to attract greater FDI inflows.

H1b; Less developed countries with better regulatory environments are likely to attract greater FDI inflows

H1c: Less developed countries with greater voice and accountability are likely to attract greater FDI inflows.

H1d: Less developed countries with greater political stability will attract greater foreign direct investment inflows.

Human resources have been distinguished as a unique resource that differs

greatly from the other resources. Unlike natural resources, human resources do not necessarily depend upon nature. Human resources are developed through education and training, as well as, through social values that include attitude towards work. Countries tend to differ in the way they allocate resources towards human resource development. Some countries have a reputation for developing highly skilled work force at lower cost. The cost of education tends to be related with existing standards of living. Developed countries may have a highly skilled force, but have higher standards of living that lead to higher labor costs that push firms towards locations with lower costs. Most researchers argue that the recent flow of FDI into developing countries of Asia has mainly been driven by access to low cost skilled labor.

H2: Developing Countries with a relatively higher level of educated workforce are likely to attract greater foreign direct investment

Many developing countries are blessed with natural resources but lack the technology and capital to extract those resources. On the other hand foreign investors have the technology and capital required to extract those resources. Dunning (1993) distinguishes four main types of motives for foreign direct investment, resource seeking, market seeking, efficiency seeking and strategic assets or capability seeking. Resource seeking FDI tends to move towards locations with access to raw materials at relatively lower cost. We therefore expect:

H3: Less developed countries with abundant natural resources will attract greater FDI inflows

Multinational enterprises originate from countries where the infrastructure has been well developed. Operating in countries where the infrastructure is underdeveloped is likely to raise operation costs. In such conditions firms will have to incur extra costs of upgrading the infrastructure or operate at a higher cost. Lack of a reliable road railway network, for example, will require switching to a road transport or air transport, an alternative that is relatively more costly. The same applies for telecommunications and power infrastructure. In some developing countries the constant supply of power (that is taken for granted in developed economies) may not be reliable and may cause investing firms to incur extra costs of building standby generators that will take over in case of power failure, an option that raises the initial costs and operational costs. The increasing development of communication and information technology has also changed the way firms operate to increasingly rely upon it for linkages with suppliers and customers. Foreign investors will operate more efficiently in countries where access to communication and information technology is widely accessible. Previous empirical studies (Wheeler and Moy 1992, Kumar 1994, Loree and Guisinger 1995) have found development of infrastructure to have a

significant positive effect on FDI inflows. We can therefore suggest that:

H4: Developing countries with relatively well developed infrastructure will attract greater FDI inflows

Unlike resource seeking investors, market seeking investors establish their presence in foreign locations with the goal of extending their market reach to new customers or following existing customers who have relocated to new locations. Large host country market size enables foreign investors to achieve economies of scale in production and distribution. The size of a host country market is therefore likely to contribute to investor's choice of new foreign location. Most of prior research on FDI location has found market size a significant determinant of FDI in developing countries including Root and Ahmed (1979), Terries (1985), Schneider and Frey (1985), Petrochilas (1989), Wheeler and Mody (1992), Lipsey 1999, and Akinkugbe (2003). We therefore expect:

H5: Less Developed countries with larger market sizes will attract greater FDI inflows.

Less developed countries with sound macroeconomic fundamentals provide confidence to investors that their economic reforms are prudently managed. Good macroeconomic policies are usually the end result of good governance strategies that ensure prudent and sound practices in government spending (Abeasi 2003). Economic risk is the likelihood that economic mismanagement of a country can lead to a drastic change in a country's economic environment and give rise to significant social unrest and hence economic and political risk. One visible indicator of economic risk is a country's level of business and government debt in the country. We can therefore expect:

H6: Less developed countries with greater economic stability will attract greater FDI inflows.

METHOD AND ANALYSIS

The dependent variable foreign direct investment was measured using the average net flow values for the period 1990 to 2002 drawn from the UNCTAD Foreign Direct Investment database of 2003 provided on CDROM. Following previous research the logarithm of average FDI values were used. Data measuring the institutional environment was measured using data provided by the World Bank Website on Governance Indicators. These institutional variables are compiled as meta-indices with 31 different indicators from 13 different sources. The rest of the investment environment indicators for the 52 developing countries were drawn from the online

UNCTAD Investment Compass they appeared on June 14, 2004. This data has been compiled with the specific purpose of being used for benchmarking FDI in developing countries. Countries in this sample include Algeria, Argentina, Armenia, Bangladesh, Benin, Bolivia, Botswana, Brazil, Burkina Faso, Cameroon, Chile, Colombia, Congo, Congo Democratic Republic, Côte d'Ivoire, Ecuador, Egypt, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lebanon, Lesotho, Malawi, Malaysia, Mali, Mauritania, Mexico, Morocco, Nepal, Niger, Nigeria, Pakistan, Paraguay, Peru, Republic of South Korea, Saudi Arabia, Senegal, Singapore, Tanzania, Thailand, Togo, Tunisia, Uganda, United Arab Emirates, Uruguay, Uzbekistan, Venezuela, and Zambia.

Seventeen indicators were used to depict developing countries' investment environment. They include road network, Port activity, internet hosts, internet users, telephone lines, airfreight, government surplus/deficit, current account deficit, human development index, production of minerals, production of agricultural commodities, literacy rate, voice and accountability, political stability, government effectiveness, regulatory quality, rule of law. For institutional variables the average values for the period 1996 to 2002 were used. For the other variables data for years 2002 was used or the most lasted available. Data for literacy was originally provided by UNCTAD Compass as illiteracy rate. It was transformed to measure literacy to ensure consistency in measurement.

Factor analysis was used to explore developing countries' investment environment. Prior to running factor analysis the variables were subjected to univariate statistical analysis. Results of the descriptive statistics are shown in Table 1. The KMO measure of sampling adequacy was 0.78 and the Barlett's test of sphericity was highly significant which suggested that the data was fit for factor analysis.

Table 1. Descriptive Statistics and Correlation matrix

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
	Road Network	Port Activity	Internet users	Internet hosts	Telephone lines	Airfreight	Gov. surplus/deficit	Current account balance	Human Dev. Index	Prod. Mineral	Prod. Agric.	Literacy rate	Voice and Accountability	Political Stability	Govt. Effectiveness	Reg. quality	Role of Law
Mean	.254	1.69	5.09	31.32	107.22	479.76	-4.44	-2.96	.59	.72	.55	25.50	-.36	-.28	-.28	-.09	-.30
Std.	.69	2.61	10.5	83.93	163.29	1280.02	3.72	8.16	.17	1.36	1.68	14.28	.58	.726	.68	.65	.67
1	1.00	.78	.42	.72	.52	.58	-.05	.35	.24	-.11	-.01	.14	.11	.30	.52	.40	.46
2	.78	1.0	.73	.80	.75	.86	-.06	.41	.32	-.09	.01	.16	.26	.41	.58	.45	.57
3	.42	.73	1.0	.74	.90	.87	.03	.33	.60	.02	-.02	.31	.41	.41	.61	.53	.61
4	.72	.80	.74	1.0	.81	.69	.04	.35	.53	-.01	.10	.34	.39	.42	.63	.55	.58
5	.52	.75	.90	.81	1.0	.80	.04	.42	.67	.05	.04	.39	.43	.42	.62	.58	.63
6	.58	.86	.87	.69	.80	1.0	.01	.38	.47	-.04	.113	.20	.33	.38	.58	.47	.60
7	-.05	-.06	.03	.04	.04	.01	1.0	.56	.21	.02	.04	.11	-.05	-.04	.09	-.01	.02
8	.35	.41	.33	.35	.42	.38	.56	1.0	.36	.01	.02	.18	.09	.13	.36	.24	.35
9	.24	.32	.60	.53	.67	.47	.21	.36	1.0	.14	.21	.80	.34	.25	.51	.52	.53
10	-.11	-.09	.02	-.01	.05	-.04	.02	.01	.14	1.0	.30	.20	.17	.02	.11	.16	.12
11	-.01	.01	-.02	.10	.04	.11	.04	.02	.21	.30	1.0	.16	.21	.03	.04	.11	.03
12	.14	.16	.31	.34	.39	.20	.11	.18	.80	.20	.16	1.00	.29	.15	.28	.37	.29
13	.11	.26	.41	.39	.43	.33	-.05	.09	.34	.17	.21	.29	1.0	.63	.58	.74	.57
14	.30	.41	.41	.42	.42	.38	-.04	.13	.25	.02	.03	.15	.63	1.00	.75	.70	.78
15	.52	.58	.61	.63	.62	.58	.09	.36	.51	.11	.04	.28	.58	.75	1.0	.86	.93
16	.40	.45	.53	.55	.58	.47	-.01	.24	.52	.16	.11	.37	.74	.70	.86	1.0	.83
17	.46	.57	.61	.58	.63	.60	.02	.35	.53	.12	.03	.29	.57	.78	.93	.83	1.0

KMO measure of sampling adequacy = 0.782 Bartlett's Test of Sphericity 2 = 305.95 p= .000 N=52

The method of principal component analysis was used to obtain estimates of initial factor extraction. A five factor solution emerged from the principal component analysis with eigen-values greater than one (see Table 2). The five factors explained 82 percent of the total variance. All variables have high communalities showing a robust solution.

Table 2. Final Statistics

Variables	Communalities	Eigenvalues	Percent of Variance	Cumulative Percent
Road Network	0.682614	7.810888	45.9464	45.9464
Port Activity	0.922653	1.984097	11.67116	57.6175
Internet users	0.808606	1.759044	10.34732	67.9648
Internet hosts	0.805907	1.283692	7.551129	75.5160
Telephone lines	0.866101	1.020867	6.005099	81.5211
Airfreight	0.829818	0.730098		
Gov. surplus/deficit	0.853543	0.710638		
Current account balance	0.816346	0.426783		
Human Dev. Index	0.925503	0.355752		
Prod. Mineral	0.570301	0.280123		
Prod. Agric.	0.755436	0.230546		
Literacy rate	0.842104	0.116615		
Voice & Accountability	0.701947	0.104569		
Political Stability	0.816611	0.066084		
Govt. Effectiveness	0.899937	0.049389		
Reg. quality	0.873045	0.040866		
Rule of Law	0.888119	0.029948		

The five factors were then rotated using the varimax method. Results of the rotated factor loading are as shown in Table 3. The first factor loaded with variables port activity, air freight, internet hosts, road network, telephone lines, and internet users. Based on these loading we can comfortably suggest that the first factor measures infrastructure. The second factor had loading, regulatory quality, rule of law, government effectiveness, voice and accountability. These loadings suggest that the second factor measures the institutional environment. The third factor was loaded with variables literacy rate and human development index, while the fourth factor was loaded with government surplus/deficit and current account balance, suggesting that the third factor measures the human capital while the fourth factor measures economic stability. The last factor had loadings production of minerals and production of agriculture suggesting that the variable measures natural resources.

In order to determine the factors influencing the choice of FDI location for

countries in the sample, the factor measures infrastructure, institutional environment, quality of human resource, economic stability, natural resource potential, and effective market size were subject to linear regression analysis. Market size was taken as provided by the UNCTAD Investment Compass data set. The basic formulation of the regression model tested is as follows:

$$\text{FDI} = f(\text{INF}, \text{HK}, \text{ES}, \text{NR}, \text{MS}, \text{INST}) \quad (1)$$

Table 3. Measures of LDC Investment Environment

Variables	Factors				
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
	Infrastructure Development	Institutional environment	Quality of Human Resources	Economic Stability	Availability of Natural Resources Potential
Port Activity	0.932235	0.224688	-0.00406	0.04166	-0.03677
Air Freight	0.862268	0.238326	0.158185	0.059347	0.031123
Internet hosts	0.811369	0.294616	0.239243	0.066722	0.042405
Road Network	0.79731	0.167767	-0.09777	0.07866	-0.05494
Telephone lines	0.764723	0.316924	0.418719	0.074323	0.003065
Internet users	0.749194	0.308795	0.379822	0.027263	-0.06522
Political Stability	0.209827	0.877626	-0.02917	-0.01705	-0.03486
Regulatory Quality	0.297578	0.844844	0.245856	0.021622	0.099259
Rule of Law	0.4196	0.819098	0.154807	0.131006	0.002435
Govt. Effectiveness	0.436218	0.812463	0.131122	0.179086	0.017128
Voice & Accountability	0.100805	0.771303	0.208952	-0.10547	0.205166
Literacy rate	0.084472	0.139533	0.891178	0.056524	0.134561
Human Development Index	0.316563	0.248383	0.843624	0.195619	0.116744
Gov. surplus/deficit	-0.10052	-0.03218	0.119188	0.909911	0.016245
Current account balance	0.375312	0.102146	0.072851	0.812108	0.015049
Prod. Minerals	0.074167	-0.00213	0.038876	0.007956	0.865077
Prod. Agriculture	-0.12569	0.140633	0.138195	0.019608	0.717806
<i>Reliability Coefficient Alpha</i>	<i>0.6629</i>	<i>0.9325</i>	<i>0.9142</i>	<i>0.8209</i>	<i>0.456</i>

That is, foreign direct investment is influenced by existing infrastructure (INF),

quality of human capital (HK), economic stability (ES), availability of natural resources (NR), effective market size (MS) and quality of existing institutions (INST). To distinguish the impact of each element of the institutional environment, five other regression models were run with the control variables and each components of the institutional environment separately. That is:

$$\text{FDI} = f(\text{INF}, \text{HK}, \text{ES}, \text{NR}, \text{MS}, \text{RL}) \quad (2)$$

$$\text{FDI} = f(\text{INF}, \text{HK}, \text{ES}, \text{NR}, \text{MS}, \text{VA}) \quad (3)$$

$$\text{FDI} = f(\text{INF}, \text{HK}, \text{ES}, \text{NR}, \text{MS}, \text{PS}) \quad (4)$$

$$\text{FDI} = f(\text{INF}, \text{HK}, \text{ES}, \text{NR}, \text{MS}, \text{GE}) \quad (5)$$

$$\text{FDI} = f(\text{INF}, \text{HK}, \text{ES}, \text{NR}, \text{MS}, \text{RG}) \quad (6)$$

Where, RL, VA, PS, GE, and RG, refer to rule of law, voice and accountability, political stability, government effectiveness, and regulatory institutions, respectively. This was necessary due to the fact that the institutional variables are highly correlated with each other, using them in one equation would cause multi-collinearity problems.

Table 4. Regression results of FDI and LDC investment environment measures

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	Coefficients (Standard Errors)	Coefficients (Standard Errors)	Coefficients (Standard Errors)	Coefficients (Standard Errors)	Coefficients (Standard Errors)	Coefficients (Standard Errors)
(Constant)	1.670*** (.149)	1.826*** (.156)	1.824*** (.149)	1.758*** (.152)	1.849*** (.154)	1.757*** (.148)
Market Size	.709*** (.148)	.671*** (.151)	.726*** (.147)	.735*** (.153)	.623*** (.154)	.732*** (.149)
Infrastructure Development	.221** (.072)	.131*** (.082)	.196* (.072)	.174* (.076)	.123ns (.087)	.114ns (.080)
Human Capital Development	.348*** (.077)	.325*** (.082)	.295** (.078)	.344*** (.079)	.336*** (.081)	.276** (.081)
Economic Stability	.041ns (.077)	0.030ns (.091)	.059ns (.0870)	0.052ns (.091)	.084ns (.094)	.012ns (.091)
Natural	0.041* (.077)	.199* (.091)	.119ns (.0870)	.168* (.091)	.199* (.094)	.153* (.091)

Resources	(.182)	(.082)	(.082)	(.082)	(.084)	(.081)
Institutional	.242**					
Quality	(.074)					
Rule of Law		.336**				
		(.119)				
Voice and			.411**			
Accountability			(.118)			
Political				.265**		
Stability				(.092)		
Government					.299*	
Effectiveness					(.121)	
Regulatory						.404**
						(122)
<i>F Value</i>	19.269	17.902	19.925	18.064	16.972	19.362
<i>R²</i>	0.734	0.719	0.740	0.721	.708	0.734
<i>Durbin Watson</i>	1.79	1.81	1.72	1.867383	1.868562	1.80
<i>N</i>	50	50	50	50	50	50

***, **, * indicate significance at $p < 0.001$, $p < 0.01$, $p < 0.05$ respectively, while # ns indicates not significant

DISCUSSION

Regression results of the six models are as shown in Table 4. Results of the first model show that market size, infrastructure development, human capital development, availability of natural resources, and high quality government institutions have a significant positive relationship with foreign direct investment inflows. However, there was no significant relationship between economic stability and FDI inflows. This suggests that, provided they have a large market, developed infrastructure, well educated work force, abundant natural resources, and high quality government institutions foreign firms are likely to invest in that country regardless of economic stability. The second model also found significant positive relationships between the rule of law and all other measures of LDC business environment except economic stability. This also suggests that, economic stability was of less significant importance to attracting FDI into less developed countries provided that the country has a large market, well developed infrastructure, developed human resources, abundant natural resources, and institutions that guarantee the rule of law.

The third model where voice and accountability was used to determine its influence on FDI inflow, we find a significant positive relationship between all the other variables in the model except economic stability and natural resources. This suggests that in less developed countries where there are strong democratic

institutions and greater accountability, foreign investors are likely to have confidence in investing in those countries regardless of their economic stability or availability of natural resources provided that they have a large domestic market, good infrastructure and well developed human resources.

When political stability is used to determine the inflow of FDI we find significant relationship between FDI and political stability along with the other variables except economic stability, suggesting that as long as the less developed country is politically stable with a large market, well developed infrastructure, highly educated workforce and rich in natural resources it will attract foreign investments regardless of its economic stability. On the other hand when regulatory quality and government effectiveness is used to determine the inflow of FDI we find a significant positive impact on FDI except for infrastructure development and economic stability that have no significant relationships with FDI, suggesting that in less developed countries where good business regulations are in place and the government is highly effective and there is a large market, well developed human capital resources, abundant natural resources, they are likely to attract foreign direct investment regardless of their existing infrastructure or economic stability. In less developed countries where there are abundant resources and the government is effective with the right regulations in place, investors are confident to invest in building the necessary infrastructure knowing that the government will be able to take its responsibilities as agreed upon.

In all the six models all the institutional variables have consistently had positive and significant relationships with foreign direct investment inflows supporting our earlier hypotheses that FDI is highly sensitive to the quality of existing government institutions in the less developed countries. As expected all the variables have had a positive relationship with FDI. However economic stability has consistently been insignificant. This is mainly due to the fact that many of the LDCs have had economic difficulties with huge foreign debts. All the models have also consistently shown significant relationships between FDI and market size, as well as qualified human resources, suggesting that quality institutions, large market size, qualified human resources are highly important for attracting FDI into LDCs.

CONCLUSION

Rather than use a single variables to measure the complex aspects of country investment environments this study uses factor analysis to provide measures of LDC investment environments. Regression analysis results have found that institutional quality, infrastructure development, market size, and development of human capital significantly influence the flow of foreign direct investment into less developed countries. However, the study found no significant relationship between FDI inflows

and economic stability. For policy makers this suggests that if they are able to build quality institutions, they will be able to attract more FDI regardless of their economic difficulties provided that the country has a large enough market and well developed human resources. Building institutions is one area where policy makers have the greatest control. Concentrating efforts in this direction will definitely encourage the growth of FDI into the less developed countries.

Rather than use single variables, further research can build upon the suggested method to build constructs of host country environment and thus providing much more robust measures of host country environments. An important determinant that is missing in this analysis is the extent to which investment promotion or country marketing efforts influence foreign investors to locate in LDCs. Further research that incorporates these measures will further enrich this field of research.

REFERENCES

- Akinkugbe, O. 2003. Flow of Foreign Direct Investment to Hitherto Neglected Developing Countries. *WIDER Working Paper* No. 2003/02.
- Basu A. and Srinivasan. 2002. Foreign Direct Investment in Africa: Some Case Studies. IMF Working Paper WP/02/61.
- Bevan, A. et al. 2004. Foreign Investment location and Institutional development in Transition Economies. *International Business Review* 13: 43-64.
- Dunning J. H. 1998. Location and the multinational enterprise: a neglected factor? *Journal of International Business Studies* 29 (1): 45-66.
- Dunning J. H. 1993. *Multinational Enterprises and the Global Economy*. New York: Addison-Wesley.
- Edwards. 1990. Capital Flows, Foreign Direct Investment, and Debt-Equity Swaps in Developing Countries. *NBER Working Paper* 3497.
- Globerman S. and D. M. Shapiro. 2002. Governance Infrastructure and U. S. and U. S. Foreign Direct Investment. *Mimeo*.
- Hellman et al. 2002. Far From Home: Do Foreign Investors Import Higher Standards of Governance in Transition Economies? *World Bank Draft Discussion Paper*.
- Hernandez-Cata, Ernesto et al. 2004. The Africa Competitiveness Report 2004. Geneva: *World Economic Forum*.
- Hess, R. 2000. Constraints on foreign direct investment in C. Jenkins, J Leape and L. Thomas (eds). *Gaining from Trade in Southern Africa: Complementary Policies to Underpin the SADC Free Trade Area*. Macmillan Commonwealth Secretariat.
- Hausmann, R and E. Fernandez-Arias. 2000. The New Wave of Capital Inflows: Sea Change or Just Another Title? *Inter-American Development Bank Working Paper* 417.
- Jenkins, C. and Thomas L. 2002. Foreign Direct Investment in Southern Africa: Determinants, Characteristics and Implications for Economic Growth and

- Poverty Alleviation. *Mimeo*.
- Jasperson, F. Z., A. H. Aylward and A. D. Knox. 2000. The Effects of Risk on Private Investment: Africa compared with other Developing Areas in Collier and Patillo (eds), *Investment and Risk in Africa*.
- Kaufmann, D. 2003. Governance Redux: The Empirical Challenge. World Bank Institute.
- Kumar, N. 1994. Determinants of Export Orientation of Foreign Production by US Multinationals: An Inter-Country Analysis. *Journal of International Business* 25 (1): 141-156.
- Lipsey, R. E. 1999. The Location and Characteristics of US Affiliates in Asia. *NBER Working Paper No. 6876*.
- Loree, D. W. and Guisinger. 1995. Policy and Non-Policy Determinants of U. S. Equity Foreign Direct Investment. *Journal of Business Studies* 26 (2): 281-299.
- Li, F. and J. Li. 1999. *Foreign Investment in China*. London: Mcmillan Press.
- Mauro, P. 1995. Corruption, Country Risk and Growth. *Quarterly Journal of Economics* 110 (3): 681-712.
- Mudambi, R. & Nayara, R. 2002. Institutions and international business: A theoretical overview. *International Business Review* 11(6): 635-646.
- North, D. C. 1990. *Institutions, institutional change and economic development*. Cambridge: Cambridge University Press.
- Ng L. F. Y. and Tuan, C. 2002. Building a Favorable Investment Environment: Evidence for the Facilitation of FDI in China. *Mimeo*.
- Oliver, C. 1997. Sustainable competitive advantage: Combining institutional and resource-based views. *Strategic Management Journal* 18: 697-713.
- Narula, R. & Dunning, J. H. 2000. Industrial development, globalization and multinational enprises: New realities for developing countries. *Oxford Development Studies* 28(2): 141-167.
- Pan, Y. 2003. The inflow of foreign direct investment to China: the impact of country-specific factors. *Journal of Business Research* 56: 829-833.
- Peng, M. W. 2000. *Business Strategies and Transition Economies*. Thousand Oaks, CA: Sage.
- Sachs, J., and S. Sievers. 1998. FDI. *Africa Competitiveness Report 1998*.
- Schneider, F. and Frey 1985, Economic and Political Determinants of foreign direct Investment. *World Development* 13(2): 161-175.
- Tsai, P. L. 1994. Determinants of Foreign Direct Investment and its Impact on Economic Growth. *Journal of Economic Development* 19: 137-163.
- Wei, S. J. 2000. How Taxing is Corruption on International Investors. National Bureau of Research *Working Paper 6030*. NEBR, Cambridge, MA.
- Wheeler, D. and A. Moody. 1992. International Investment Location Decisions: The Case of U. S. Firms. *Journal of International Economics* 33: 57-76.