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Determinants of FDI attractiveness: A MCI model approach

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Abstract

This study aims to use a Multiplicative Competitive Interaction approach to identify the major factors that influence the decision to engage in foreign direct investment (FDI) by focusing on the ease of doing business index and its subindexes (institutional quality) and GDP (market size). Results are drawn from an annual dataset on 175 countries between 2005 and 2015. Empirical findings suggest institutional effect dominates market size effect, and therefore, to be more competitive in attracting FDI, countries must increase their business environment's efficiency by mainly focusing on judicial system improvement.

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1. Introduction

Countries consider foreign direct investment (FDI) a springboard for economic growth. Thus, investigating FDI determinants is important (Shah, 2016). One FDI determinant, location, is based on motive: is it market-seeking or non-market-seeking (Asiedu, 2002), and in this case, the FDI determinant affects just the initial market entry (Sethi *et al*., 2003). However, the factors favoring an initial investment into a country could change, and multinational enterprises (MNEs) could move new investments elsewhere. In addition, international financial chaos and economic crises in recent years have restrained countries' ability to invest abroad (Milner, 2014), and this has created fierce competition between FDI host countries to get a part of whatever is available (Williams, 2015).

This study aims to use the Multiplicative Competitive Interaction (MCI) Model, a popular marketing research approach, to identify the major factors that influence the attractiveness of FDI by focusing on the doing business variable and its various subindexes variables. We employed the dependent variable of FDI stocks and the market size measured by GDP (Hayakawa *et al*., 2013). The business environment was measured by the doing business index in Model 1, and its subindexes in Model 2 are explanatory variables. The choices for these variables were influenced by the recognition that traditional FDI determinants, such as resources and labor cost, are becoming relatively less important and are being replaced by more popular determinants, such as governance and economic freedom (Addison and Heshmati, 2003; Becchetti and Hasan, 2004; Noorbakhsh *et al*., 2001).

The article is organized as follows: Section 2 reviews the relevant literature, Section 3 presents the methodology and the data, and Section 4 presents the conclusions and the model's limitations.

2. Literature review

Globalization opens opportunities for investment, but it also drives FDI-seeking countries into competition with other countries also pursuing it in an effort to come the closest to investors' expectations. In an attempt to identify the factors that attract FDI, many studies have constructed mainly linear models that consider a wide range of FDI determinants that can be grouped into classes. These determinants include location, the macroeconomic environment, and institutional indicators.

2.1 Location determinants

Dunning's (1998) eclectic paradigm broadly suggests an MNE invests in the most advantageous location. That is a strategic objective. A location can be chosen because of its availability to natural resources and the numerous benefits accrued to MNEs, such as a unified market, networking opportunities, and an infrastructure lacking barriers. The availability of a supportive infrastructure is essential for the smooth functioning of multinational's affiliate production and trade activities (Shah, 2014). Khachoo and Khan (2012) used electric power consumption as an infrastructure proxy with panel cointegration tests and the Fully Modified OLS (FMOLS) method to measure its impact on FDI inflows. Du *et al*. (2012) included infrastructure in a discrete choice model to investigate FDI determinants. Kok and Ersoy (2009) through a panel

FMOLS and a cross-section Seemingly Unrelated Regression (SUR) showed the main determinant of FDI inflows in developing countries is its communication facilities, which serve as an infrastructure proxy.

2.2 Macroeconomic environment

Economic factors play an important role in explaining FDI flows because FDI is itself an economic concept (Tocar, 2018). This macroeconomic indicator reveals the level of robustness of domestic economic growth and influences MNEs' confidence in the effectiveness of their investment activities. The factor used to proxy a host country's economic health differs for each study: it can be economic size (Hayakawa *et al.*, 2013; Riedl, 2010) or economic size (Jurcau *et al*., 2011; Tang, 2012). Riedl (2010) implemented a dynamic panel model in investigating FDI determinants, and Hayakawa *et al.* (2013) and Sharma and Bandara (2010) used linear panel models with fixed or random effects.

2.3 Institutional indicators

Governments have an important role in providing an environment conducive to FDI. Recent studies on the effect of institutional quality on FDI (Ali *et al*., 2010; Buchanan *et al*., 2012) support that good governance can attract FDI (Gani, 2007; Globerman and Shapiro, 2002; Globerman *et al*., 2004). However, there are two factors that affect FDI: political risk (i.e., political stability and security) and ease of doing business, which deals with government efficiency.

2.3.1 Political risk

The effect of political risk on FDI inflows is not clearly defined. For Schneider and Matei (2010), the relationship is negative, but Jaspersen *et al.* (2000) and Hausmann and Fernandez-Arias (2000) showed that there is no nexus between FDI inflows and political risk. Jensen (2003) argued that political restrictions are important determinants of multinationals' investments and FDI inflows. Meanwhile, Busse and Hefeker (2007) found in a cross-country fixed-effects and dynamic panel analysis that government stability, internal and external conflict, corruption, ethnic tensions, law and order, democratic accountability of government, and quality of bureaucracy are highly significant determinants of foreign investment inflows.

2.3.2 Ease of doing business subindexes

Business environment quality has a positive relationship with FDI inflows. Jayasuriya (2011), using the Arellano-Bond dynamic panel method, demonstrated the significant influence of ease of doing business rankings and foreign direct investments in 84 countries. With a combined sample of sub-Saharan African and Asian countries through a correlation model, Morris and Aziz (2011) also concluded that a positive relationship exists between the ease of doing business index and FDI. However, ease of doing business and FDI were not significantly related for Asian countries.

Many parameters must come together to produce an efficient business climate. These may include the procedural ease of starting a business, the applicability of property rights, and the

enforcement of business contracts. Gani and Al-Abri (2013) used a fixed-effect panel model to identify the effect of five business environment indicators and four institutional quality measures on FDI inflows in Gulf Cooperation Council countries. Their empirical results revealed that the time required to start a business, to enforce a contract, and to register a property and the time required to resolve insolvency are negatively correlated with FDI inflows. In addition, fiscal policy is a major factor influencing FDI. Göndör and Nistor (2012) found competition between governments for FDI is not necessarily based on a corporate tax rate, but rather a business environment, which is determined primarily by fiscal policy. Richards and Nwankwo (2005) stated that institutional variables, mainly corruption and protection of property rights, play an important role in FDI attraction. Similarly, Staats and Biglaiser's (2012) study results indicated rule of law and judicial strength were important determinants of FDI inflows in 17 Latin American countries.

We believe this present study investigating the determinants of FDI is the first to deal with the determinants of FDI attractiveness using the MCI model and GDP-ease of doing business index factors combination.

3. Methodology

3.1. Data and variables

This study used annual ease of doing business data from 2005 to 2015 to get the widest and longest sample—175 countries worldwide. We collected study data from FDI stocks, the ease of doing business global index, seven ease of doing business subindexes, and GDP. 3.1.1 FDI stocks

FDI stocks data were collected from the United Nations Conference on Trade and Development (n.d.) database. The Organisation for Economic Co-operation and Development (OECD) defines them as "a measure of the total level of direct investment at a given point in time, usually the end of a quarter or of a year. The inward FDI stock is the value of foreign investors' equity and net loans to enterprises resident in the reporting economy."

3.1.2 Ease of doing business index

Ease of doing business indexes were compiled from World Bank data and present quantitative indicators on business regulations and the protection of property rights. The global doing business score (DB) was calculated from the following 10 subindexes scored from 0 to 100 (Table 2).

Table 1 - Ease of doing business subindexes

Subindex	Indicators
Starting a Business	- Procedures - Time - Cost - Paid-in minimum capital

Dealing with Construction Permits	- Procedures - Time - Cost - Building quality control index
Getting Electricity	- Procedures - Time - Cost - Reliability of supply and transparency of tariff index
Registering Property	- Procedures - Time - Cost - Quality of the land administration index
Getting Credit	- Strength of legal rights index - Depth of credit information index
Protecting Minority Investors	- Extent of conflict of interest regulation index - Extent of shareholder governance index
Paying Taxes	- Payments - Time - Total tax rate
Trading across Borders	- Documents to export and to import - Time to export or to import - Cost to export or to import
Enforcing Contracts	- Procedures - Time - Cost
Resolving Insolvency	- Recovery rate - Strength of insolvency framework index

3.1.3 GDP

GDP represents the economic dynamic of countries. We followed Sharma and Bandara (2010)

and Hayakawa *et al.* (2013) by using GDP as the market size's proxy in this study. Data were collected from the World Bank dataset.

The variables taken in logarithm were correlated, as shown in Table 3.

Table 2 - Correlation between the logged variables

	SHARE	GDP	DB	START	CONST	ELEC	PROP	CRED	INVES	TAXE	TRAD	CONTR	INSOL
SHARE	1												
GDP	0.90	1											
DB	0.55	0.44	1										
START	0.39	0.30	0.71	1									
CONST	0.09	0.03	046	0.23	1								
ELEC	0.29	0.23	0.51	0.26	0.20	1							
PROP	0.28	0.29	0.40	0.21	0.32	0.13	1						
CRED	0.48	0.43	0.70	0.47	0.30	0.24	0.33	1					
INVES	0.37	0.31	0.64	0.40	0.30	0.16	0.25	0.53	1				
TAXE	0.16	0.10	0.55	0.36	0.21	0.33	0.07	0.25	0.31	1			
TRAD	0.32	0.21	0.58	0.28	0.28	0.37	0.06	0.38	0.33	0.36	1		
CONTR	0.41	0.33	0.51	0.37	0.06	0.23	0.46	0.36	0.24	0.11	0.12	1	
INSOL	0.49	0.39	0.60	0.52	0.26	0.20	0.30	0.48	0.36	0.25	0.33	0.37	1

DB: doing business; START: starting a business; CONST: dealing with construction permits; ELEC: getting electricity; PROP: registering property; CRED: getting credit; INVES: protecting minority investors; TAXE: paying taxes; TRAD: trading across borders; CONTR: contract execution; INSOL: resolving insolvency

3.2. MCI model

Cooper and Nakanishi (1988) proposed the Multiplicative Interaction Model (MCI model), which is a simplified version of the Huff (1962) model. The model is used in marketing to analyze the attractiveness of each brand and the effects of marketing instruments on the market share. According to Bell *et al.* (1975), based on the MCI model, when consumers are faced with a set of interesting brands, the one with the highest attraction gains the greatest market share. Multiplicative Competitive Interaction is an econometric model analyzing market shares and/or market areas in a competitive environment where the market is divided in j submarkets (e.g. groups of customers) and served by i suppliers (e.g. firms).

FDI market is divided in j submarkets (e.g. host countries) and served by i suppliers (e.g. MNEs) worldwide. Globalization opens opportunities but engages countries in a competition to attract FDI. Each country must come closer to the investors' expectations, compared with other countries to be competitive for FDI. The basic idea of MCI model is that the consumers (investors / MNEs) are faced a set of brands (countries) of interest and the brand (country) with highest attraction has the greatest market share.

In this present study, countries were considered as brands disputing market shares of FDI stocks, and the customer is the investor. We argue that in today's globalized world, countries are competing for private capital, specifically FDI. Therefore, we apply the market share concept to explain the yearly changes in inward FDI stocks by using investors' interest in the institutional environment quality and market size to invest in a country. The dynamic MCI model is expressed in Equations 1, 2, and 3.

$$s_{i,t} = \frac{\mathcal{A}_{i,t}}{\sum_{j=1}^{m} \mathcal{A}_{j,t}} \quad (1)$$

$$\mathcal{A}_{i,t} = \prod_{k=1}^{K} X_{k,i,t}^{\beta_k} \cdot \epsilon_i \quad (2)$$

$$\ln\left(\frac{s_{i,t}}{\check{s}_t}\right) = \alpha_1 + \sum_{t=2}^{T} \mu_t 1_t + \sum_{k=1}^{K} \beta_k ln\left(\frac{X_{k,i,t}}{\check{X}_{k,t}}\right) + u_{i,t} \quad (3)$$

Where:

$s_{i,t}$: Market share of country *i*

$\mathcal{A}_{i,t}$: Attractiveness of country *i*

m: number of countries

$X_{k,i,t}$: Value of the k^{th}explanatory variable X for country *i*

K: Number of explanatory variables

$\check{s}$,$\check{X}$: Geometric mean of *s* and *X*

Considering $\alpha_0 = \alpha_1 + \ln(\check{s}_t) - \sum_{k=1}^{K} \beta_k \ln(\check{X}_{k,t})$, the model can be written as Equation 4:

$$\ln(s_{i,t}) = \underbrace{\alpha_0}_{Intercept} + \underbrace{\sum 1_t \mu_t}_{time\ effect} + \underbrace{\sum_{k=1}^{K} \beta_k ln(X_{k,i,t})}_{Explanatory\ variables\ effects} + \underbrace{u_{i,t}}_{model\ innovation} \quad (4)$$

The elasticity for the MCI model is: $e_{ik} = \frac{\frac{\Delta s_i}{s_i}}{\frac{\Delta X_{i,k}}{X_{i,k}}} = \beta_k(1 - s_i)$ (5)

If the market shares tend to 0, then the elasticities $\boldsymbol{e_k}$ tend to $\boldsymbol{\beta}_k$. Given the relatively large sample of the study, we suppose that market shares tend to zero. The $\boldsymbol{\beta}_k$ are therefore supposed to be the elasticities of the model (Equation 5).

3.3. Data analysis and results

Data analysis was done in three steps (models). Model 0 (Naïve model) explores the relation

between FDI and GDP. Model 1 regresses FDI on GDP and the ease of doing business global index. Model 2 regresses FDI on GDP and the ease of doing business subindexes. Sample countries in the study should have competed by continuously improving year-by-year FDI determinants in order to increase their shares. If a country does not improve FDI determinants, its share of FDI decreases over time. That reflects the competitive effect that we include in the models through time effect ($\sum 1_t \, \mu_t$). Our observations are shown in Table 3.

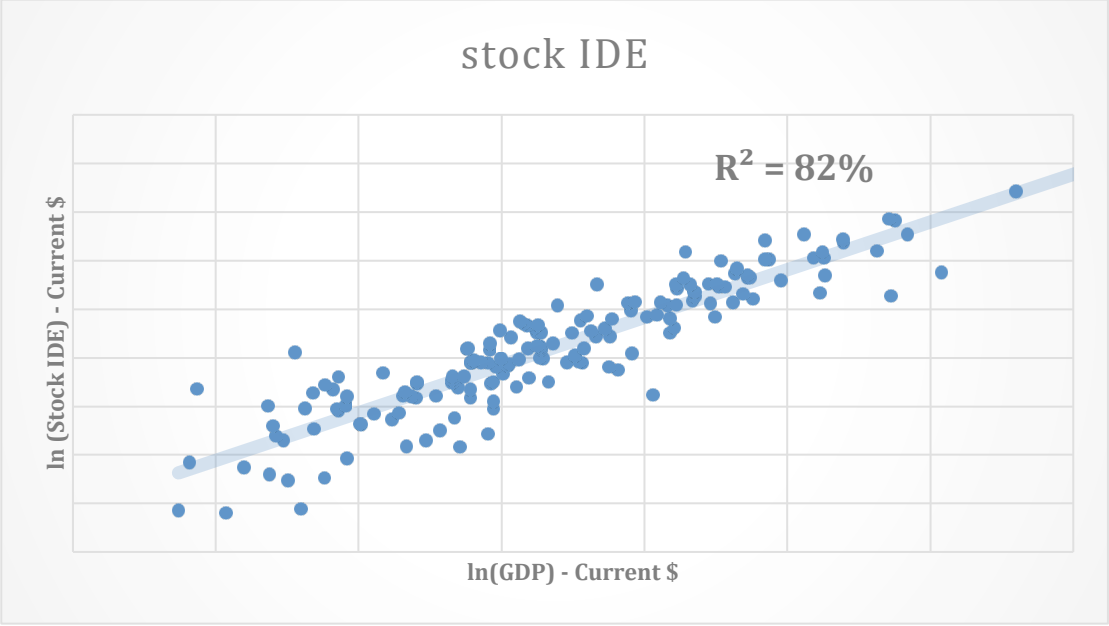
Table 3 - Observations

	Countries	Years	Variables	Observations
Model 0	175	11	2	**3,850**
Model 1	175	11	3	**5,675**
Model 2	175	11	9	**17,325**

3.3.1. Model 0: FDI = f(GDP)

It appears there is a strong positive relationship between GDP and FDI (correlation coefficient [0.9] in Table 3 and R^2 = 0.82 in Figure 1). This follows Sharma and Bandara's (2010) and Blonigen's (2011) results, which supported the key factor explaining disparities of FDI inflows between countries is market size.

Figure 1 - Relationship between FDI and GDP



3.3.2. Model 1: FDI = f(GDP, Doing Business)

The interest of this first specification is to compare the effects of institutional environment and the market size by examining the difference between the synthetic index of ease of doing business and its components. Model 1 reads as follows (Equation 6):

$$\ln(SHARE_{i,t}) = -36.18 + 0.84 \times \ln(GDP_{i,t}) + 2.15 \times \ln(DB_{i,t}) + \sum_{t=2006}^{2015} \mu_t 1_t + u_{i,t} \quad (6)$$

Table 4 provides the estimation results for model 1.

Table 4 – Estimation results model 1

Variables	**Estimate**	**Conf. Int.**	**Std. Error**
(Intercept)	-36.18 ***	[-37.06 , -35.30]	0.45
ln(GDP)	0.84 ***	[0.82 , 0.87]	0.01
ln(DB)	2.15 ***	[1.92 , 2.37]	0.12
Year			
2006	-0.16	[-0.39 , 0.06]	0.11
2007	-0.30 **	[-0.51 , -0.08]	0.11
2008	-0.22 *	[-0.43 , -0.01]	0.11
2009	-0.24 *	[-0.45 , -0.03]	0.11
2010	-0.36 ***	[-0.57 , -0.15]	0.11
2011	-0.42 ***	[-0.63 , -0.21]	0.11
2012	-0.47 ***	[-0.68 , -0.26]	0.11
2013	-0.56 ***	[-0.77 , -0.35]	0.11
2014	-0.59 ***	[-0.80 , -0.39]	0.11
2015	-0.45 ***	[-0.66 , -0.25]	0.11
Observations	5.675		
R^2 / adj. R^2	0.838 / 0.837		
F-statistics	825.843***		

Notes: * p<.05; ** p<.01; *** p<.001

The model is statistically significant (p value < 0.1% for Fisher's joint nullity test) and has an R^2 of 84%.

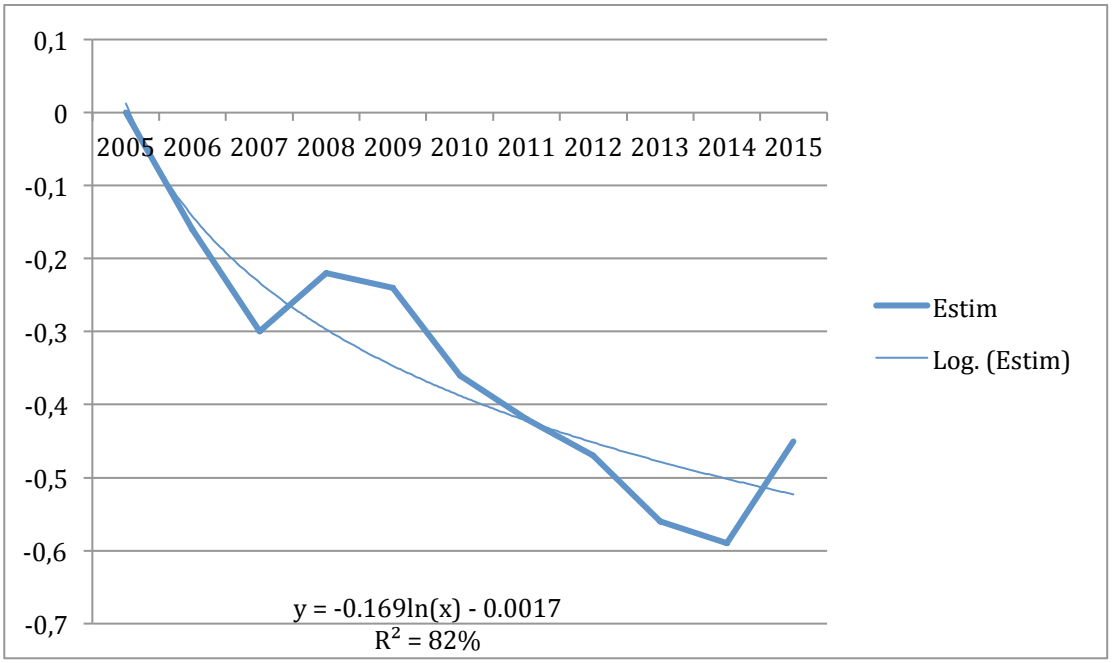
Results indicate that the ease of doing business index is positively correlated with FDI inflows. That is in the line with theoretical prediction and empirical findings. Strong legal institutions decrease transaction costs for MNEs (Khoury and Peng, 2011) and attract FDI, and poor institutions deter FDI (Ali *et al.*, 2010); therefore, host countries with better governance could attract more FDI (Gani, 2007; Globerman and Shapiro, 2002; Globerman *et al.*, 2004). The

elasticity of this variable (2.15) is almost triple the GDP elasticity (0.84); thus, institutional effect widely dominates market-size effect. This is supported by Göndör and Nistor (2012), who argued that a favorable business environment is the most important criterion for investors.

In our study, this result can be explained by the fact that in Model 1, the institutional environment proxy variable is the synthetic ease of doing business index, and the market size proxy is a single variable, GDP. In recognizing the benefits of FDI, it is important for host countries to continuously improve their business environments to be more competitive and attractive for FDI (Gani and Al-Abri, 2013). In the same line, Bailey's (2018) results suggest that host countries with stronger positively related institutions do appear to attract FDI.

Time variables coefficients in the results that Table 4 shows indicate there is a decrease from the first year of the study (2005), indicating the evidence of a competitive effect, as graphically shown in Figure 2. This decrease is synonymous with a decline in the country's share of FDI in time without an improvement in market size (GDP) and the business environment (ease of doing business index). This can reach 5%[1] per year. (For the slope of the regression of Coefficients μ_t on time, see Figure 2).

Figure 2: The coefficients μ_t and their trend model 1



3.3.3. Model 2: FDI= f(GDP, subindexes Doing Business)

We applied the stepwise selection method to deal with the problem of collinearity and robustness of the results. The selection method allowed excluding *getting credits, paying taxes,* and *dealing*

[1] 5% corresponds to the slope of the regression of the coefficients μ_t on time, cf. FIG. 3

with construction permits from the model. The final specification model 2 is significant at a 1% level (Fisher test) and has a coefficient of determination of 85%. The model was written by classifying the variables in decreasing elasticities (coefficients) (Equation 7):

$$\ln(SHARE) = -34.16 + 0.84\times \ln(GDP) + 0.62\times \ln(CONTR) + 0.35\times \ln(START) + 0.30\times \ln(TRAD) + 0.25\times \ln(INVES) + 0.21\times \ln(ELEC) + 0.17\times \ln(INSOL) - 0.19\times \ln(PROP) + \sum_{t=2006}^{2015} \mu_t 1_t + u_{i,t} \quad (7)$$

The competition effect in Model 1 remained present in Model 2. Student's nullity tests on the coefficients of ease of doing business subindexes showed that they significantly affect FDI market shares.

The cumulative effect of ease of doing business subindexes, determined as the sum of their coefficient ($\sum_{k=1}^{7} \beta_k = 1.71$, where β_k is the coefficient of doing business subindex k), remained greater than the effect of GDP consistent with Model 1's result. Institutional effect dominated market size effect because multinational enterprises' priorities are shifting from market and resource seeking to efficiency seeking (Dunning, 2002). Since the 1990s, more attention has been placed on the influence of institutions, defined as the rules of the game that shape human interaction in society (Bailey, 2018). However, the analysis of the elasticities (Table 5), variable by variable in model 2, shows that GDP has the highest effect, supporting Sharma and Bandara's (2010) and Blonigen's (2011) results.

We sorted ease of doing business subindexes in descending order of elasticities. The results revealed that contract execution (CONTR) is the most influential variable in FDI attractiveness, with an elasticity of 0.62. This variable measures the quality, speed, and effectiveness of the judicial process. We agree with Bailey (2018) that the quality of the legal system encourages FDI in a given country. Strong rules of law decrease uncertainty, protect MNEs, and permit foreign competition by addressing market failures (Globerman and Shapiro, 2002; Li and Resnick, 2003), which should increase efficiency and, ultimately, improve profitability (Bailey, 2018). It would then be a priority for countries that wish to clean up their business environments to attract foreign investors to review their judicial processes and make them more efficient.

Starting a business (START) had the second highest impact. It measured the ease of entrepreneurship and had an elasticity of 0.35. Facilitating procedures in setting up a business for foreign investors had a significant positive impact on the attractiveness of countries. This is in line with Siegel *et al.*'s (2013) findings and also Bayraktar's (2013) determination that strong improvement in the starting a business indicator in developing countries is one of the highest determinants of FDI inflows. This reinforces that excessive regulations are inefficient and dissuade new firm creation (Munemo, 2015).

Table 5 : Estimation results model 2

	Estimate	Conf. Int.	Std. Error
(Intercept)	-34.16***	[-35.05 , -33.27]	0.45
ln(GDP)	0.84***	[0.81 , 0.85]	0.01
ln(START)	0.35***	[0.14 , 0.57]	0.11
ln(ELEC+1)	0.21***	[0.11 , 0.32]	0.05
ln(PROP+1)	-0.19***	[-0.29 , -0.08]	0.05
ln(INVES)	0.25***	[0.12 , 0.38]	0.07
ln(TRAD+1)	0.30***	[0.23 , 0.38]	0.04
ln(CONTR)	0.62***	[0.47 , 0.76]	0.08
ln(INSOL+1)	0.17***	[0.11 , 0.22]	0.03
Year			
2006	-0.14	[-0.36 , 0.07]	0.11
2007	-0.28**	[-0.49 , -0.07]	0.11
2008	-0.19	[-0.39 , -0.02]	0.10
2009	-0.17	[-0.38 , -0.03]	0.10
2010	-0.26*	[-0.47 , -0.06]	0.10
2011	-0.31**	[-0.51 , -0.10]	0.10
2012	-0.34***	[-0.54 , -0.14]	0.10
2013	-0.42***	[-0.62 , -0.21]	0.10
2014	-0.48***	[-0.68 , -0.28]	0.10
2015	-0.39***	[-0.60 , -0.18]	0.10
Observations		17.325	
R^2 / adj. R^2		0.849 / 0.848	
F-statistics		596.074***	

Notes: *p < .05; **p < .01; ***p < .001

The cross-border trade subindex (TRAD) measured the ease of international trade. With an elasticity of 0.30, it is ranked third in the descending ranking order of influential intensity of FDI stocks changes. Our findings agree with Kok and Ersoy (2009) and Kersan- Škabić (2013).

Protecting minority investors (INVES) positively affected market shares in FDI with an elasticity of 0.25. In this, we agree theoretically and empirically with Du *et al.* (2012). It is important to improve the level of protection of minority investors against directors' abuses regarding corporate assets, as well as shareholder rights, governance guarantees, and transparency requirements. Improvements in protecting investors highly determine FDI inflows (Bayraktar, 2013).

Getting electricity (ELEC) is a measure of the quality of infrastructure. Providing quality infrastructure is therefore a key factor in attracting FDI. It is ranked sixth with a 0.21 estimated coefficient; this is consistent with Khachoo and Khan (2012), but not with Kok and Ersoy (2009), who obtained a non-significant impact.

The resolving insolvency (INSOL) subindex examines the time, cost, and outcome of insolvency proceedings for domestic enterprises and the soundness of the legal framework applicable to liquidation and judicial redress procedures. Its positive coefficient of 0.17 indicates the need to improve judicial processes and recovery rates.

Registering property (PROP) in the ease of doing business subindex records procedures necessary for a property and land administration system's quality. This variable had a negative effect of -0.19 on FDI attractiveness. It appears that the longer and more expensive the procedures of buying, selling, and transferring ownership in a country, the less investors are attracted to this country.

4. Conclusion and limits

4.1 Conclusion

This study implements the MCI model, a popular marketing research approach, to test the theoretical expectations and empirical results in the FDI literature related to GDP (market-size effect) and the ease of doing business index (institutional effect). Global openness and almost-perfect mobility of capital have caused countries to compete to attract more FDI; this justifies using the MCI model to highlight these effects. The results support the theoretical and empirical literature, confirming market size and institutional quality positively affect countries' shares of FDI. The overall institutional effect dominates the market-size effect; however, market size dominates each of the institutional quality's components. The results show countries that are static in improving market size and quality of governance can potentially lose 5% of their share of FDI per year.

4.2 Limits

The MCI model seems to be a useful tool to analyze the determinants of FDI. However, a main limitation in adapting MCI model to countries is that there are differencies between countries and brands. Brands are supposed to have similar products or services. In this study, we suppose that countries are similar in terms of investment opportunities. The MCI model can be extended in

some ways in future studies. First, it can be employed to introduce lag FDI shares to consider the present dynamic world because it is possible an endogeneity problem exists given that foreign investors are typically risk averse and tend to avoid unfamiliar territories (Quazi, 2007). Second, we can include a greater number of determinants to more completely cover the field and confirm the adaptability of the MCI model. Third, the study can include regional (Sethi *et al.*, 2003), political regime or stability (Globerman and Shapiro, 2003), or developing/developed countries dummies (Hermes and Lensink, 2003) in order to conclude if they have an impact on the classification of FDI determinants.

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