Effects of Global Competitiveness, Human Development, and Corruption on Inward Foreign Direct Investment

Tamilla Curtis  
*Embry-Riddle Aeronautical University, curtist@erau.edu*

Dawna L. Rhoades  
*Embry-Riddle Aeronautical University, rhoadesd@erau.edu*

Tom Griffin  
*Nova Southeastern University*

Follow this and additional works at: https://commons.erau.edu/db-management

Part of the Behavioral Economics Commons, Business Law, Public Responsibility, and Ethics Commons, International Business Commons, and the International Economics Commons

Scholarly Commons Citation

This Article is brought to you for free and open access by the David B. O'Malley College of Business at Scholarly Commons. It has been accepted for inclusion in Management, Marketing and Operations - Daytona Beach by an authorized administrator of Scholarly Commons. For more information, please contact commons@erau.edu.
Effects of Global Competitiveness, Human Development, and Corruption on Inward Foreign Direct Investment

Tamilla Curtis, College of Business, Embry-Riddle Aeronautical University, Florida
curtist@erau.edu

Dawna L. Rhoades, College of Business, Embry-Riddle Aeronautical University, Florida
Dawna.Rhoades@erau.edu

Thomas E. Griffin, H. Wayne Huizenga School of Business and Entrepreneurship, Nova Southeastern University, Florida
teg riffi@nova.edu

Executive Summary

The purpose of this paper is to investigate which of Dunning's location-specific advantages of host countries, presented as composite indices for Global Competitiveness, Human Development and Corruption Perception, better predict the level of inward Foreign Direct Investment (FDI).

A stepwise multiple regression method was applied on a sample of 129 countries, which was further divided into two subgroups: OECD members and non-OECD members. The study provides evidence that global competitiveness and the level of corruption of the host country are important determinants for inward FDI. For non-OECD countries the Human Development index appears to be an additional FDI determinant. More empirical research utilizing time series or panel data technique is needed to further explore this area of research.

Introduction

The question of what drives international trade and the selection of entry mode has been the subject of speculation and research since Adam Smith first raised the issue in 1776. There has been broad general agreement suggesting that firms make their decisions on markets and means of entry by considering three broad issues – resource commitment, control, and risk (Anderson and Gatignon, 1986; Hill, Hwang and Kim, 1990; Tallman and Shenkar, 1994). The issue of risk in
particular has received a great deal of attention. Miller (1992) proposed an integrated framework of risk that classified it into three categories: general environmental uncertainty, industry risk, and firm uncertainty.

Firms seek to understand and control risk in many ways; one way to control it is through ownership or foreign direct investment (Root, 1987, Stopford and Wells, 1972; Tallman and Shenkar, 1994). Foreign direct investment has become an important topic since the globalization of capital markets, and the actions of the World Trade Organization (WTO) have increased the opportunities for such investments (Haksoon, 2010). As liberalization spreads, countries have employed policies and regulations that increase the successful ability to invest across borders (Spar, 2009). Further, individual country characteristics have been shown to influence the level of international trade and investment (Muhammad and Eatzaz, 2009).

Foreign direct investment (FDI) can be defined as "a category of investment that reflects the objective of establishing a lasting interest by a resident enterprise in one economy (direct investor in an enterprise) that is resident in an economy other than that of the direct investor" (OECD, 2012a). A threshold of 10% of equity owners will qualify as a foreign direct investor. Spar (2009) defines FDI as an aggregate flow of capital and technology across international borders or a transfer of resources from one location another.

In 2011, the total flows of global FDI at $1.5 trillion exceeded pre-financial crisis levels. However, this recovery is expected to level off in 2012 at approximately $1.6 trillion. The United Nations World Investment Report (2012) stated that prospects for foreign direct investment continue to have high risks and uncertainties. Half of the global total is forecasted to flow to developing and transition economies (UNCTAD, 2012).

According to the United Nations Conference on Trade and Development (UNCTAD) classification, the FDI determining variables fall into three main categories:

1) Policy variables: taxation, trade, privatization, macroeconomic, and so forth.
2) Business variables: investment, incentives, and so forth.
3) Economic variables: market related, resource-related, and efficiency-related

In general, FDI positively affects the economy of host countries including technology transfer and other intangible assets, which lead to increases in productivity and efficiency in resource allocation. However, some negative effects can also arise from the increase in market power of multinational corporations because of their ability to generate high profits (Kok and Ersoy, 2009).
Even though a large body of research has been conducted to investigate what attracts foreign investment, no agreement exists on the role and direction of some FDI determinants (Aw and Tang, 2010). This exploratory study addresses this issue by investigating the possible role of composite FDI determinates instead of the single indicators used in previous research.

These composite FDI determinates have been developed by several large and well-known non-governmental international organizations – The World Economic Forum, the United Nations Development Program, and Transparency International. Specifically, this study seeks to identify which of these composite instruments, the Global Competitiveness Index, Human Development Index, and Corruption Perceptions Index, is a better indicator of the level of inward FDI.

The research is presented in the following manner. The FDI Eclectic Theory’s three determinants are outlined first, followed by a description of the data set, research methodology, and statistical analysis. The study concludes with research limitations and discussion of the results.

**FDI and its Determinants**

In the mid-1970s, transaction cost analysis (Williamson, 1975) and internalization theory (Buckley and Casson, 1976) shifted the focus of the international entry mode debate to the firm level. The Eclectic Model proposed by Dunning (1980) offered a general theory of international activity that incorporated both concepts and specified three main conditions, which should be satisfied for FDI to occur:

1. **Ownership advantage:** a foreign firm should develop competitive advantage that allows it to compete with local firms.

2. **Location advantage:** it should be profitable for the firm to carry out its business activities outside its home domain.

3. **Internalization advantage:** a firm will benefit from being in control of operational aspect of the foreign business entity rather than hiring a local company in a foreign market to provide the service and to be in charge of operations (Dunning, 1980).

Resmini (2000) indicated that while the first and the third conditions (push-side factors) related to the home-country characteristics, allowing a firm to develop competitive advantage and become multinational, the second condition, location advantage, is the host-country specific (pull-side factor). Examples of pull-side factors could include host country’s market size, economic growth, labor cost, levels of competition, technology, cultural distance, political and legal environment,
infrastructure, government policy, and other factors (Wang, Clegg, and Kafouros, 2009).

A number of variables have been investigated from the macroeconomic and microeconomic perspective to identify the Foreign Direct Investment determinants. The rapid growth of FDI has been linked to significant changes of its determinants (Noorbakhsh, Paloni, and Youssef, 2001).

- Prior to the 1950s, FDI was concentrated primarily in resource-based manufacturing;
- in the 1960s the market’s size and its growth became the main concern;
- in the 1980s FDI shifted towards services and technology-based manufacturing;
- throughout the 1990s FDI rose faster in developing than developed countries (Noorbakhsh, Paloni, and Youssef, 2001).

Currently the traditional determinates of FDI, such as the availability of natural resources, remains the principle determinate for natural-resource seeking FDI, while access to local markets remains a key factor for non-tradable services. The implementation of advanced technologies influenced the shift of FDI towards capital, knowledge, and skill intensive industries, which requires a well-educated pool of labor.

Despite the large body of research on FDI determinates, results vary on their impact. Exhibit 1 provides examples of researched variables and contradictory findings on their relationship to FDI. This research investigates the impact of three composite indices on inward FDI-global competitiveness, human development, and corruption.
Exhibit 1: Foreign Direct Investment Determinants

<table>
<thead>
<tr>
<th>Determinants of FDI</th>
<th>Positive</th>
<th>Negative</th>
<th>Statistically insignificant</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Economic</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market size and return on investment</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Wages and skilled labor</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Openness and liberalization</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infrastructure</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Country’s level of development</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Balance of payments and trade balance</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Tax rate</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Inflation rate and real exchange rate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price of capital</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R&amp;D expenditure</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Domestic consumption spending</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Political</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bilateral and multilateral aid</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political stability and transparency</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Corruption</td>
<td></td>
<td>x</td>
<td>X</td>
</tr>
<tr>
<td>Government size</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Good governance</td>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Adapted from Aw and Tang (2010)

**Global Competitiveness**

The level of country competitiveness does encourage both inward and outward FDI (Dunning and Zhang, 2008). Competitiveness can be defined "as the set of institutions, policies, and factors that determine the level of productivity of a country" (GCR, 2012).

The level of productivity is directly linked to the level of economic prosperity, which determines the rates of return obtained by investments. A more competitive economy is one that is likely to sustain growth (GCR, 2012). Governance and the quality of formal institutions are part of a country's global competitiveness and have been extensively investigated in regards to FDI. Outreville (2008) focused on governance; that is, how authority is exercised in a particular country, and included the following characteristics:

- The process by which governments are selected, held accountable, monitored, and replaced
- The capacity of governments to manage resources efficiently and formulate, implement, and enforce sound policies and regulations
The respect of citizens and the state for the institutions that govern economic and social interactions among them.

There is a strong tendency for organizations to seek international locations which have favorable conditions to invest due to local policies and regulations (Outreville, 2008). Seyoum (2009) analyzed 125 countries in different geographic areas and confirmed that strong formal institutions in host countries positively influence FDI flows, while large institutional distance between the home and the host country reduced FDI inflows.

The World Economic Forum annually publishes its Global Competitiveness Report, which is based on publicly available data and an Executive Opinion Survey. The Executive Opinion Survey gathers opinions of business leaders throughout the world, concerning the factors that impact the business environment and the competitiveness of a nation. The level of competitiveness is defined as the set of institutions, policies, and factors that determine the level of productivity of a country (GCR, 2012).

The main goal of the report is to provide a state of a nations’ economic environment and its ability to achieve sustained levels of prosperity and growth. Between January and June 2012, over 15,000 business leaders were surveyed in almost 150 countries with a total of 14,059 surveys retained, which represent an average of 100 respondents per country. The overall results indicated that competitiveness was divided across and within regions, and productivity improvements and private sector investment will be key for the global economies’ improvements.

Since 2005, the Global Competitiveness Report has published its Global Competitiveness Index (GCI), which incorporates a variety of variables such as institutions, infrastructure, macroeconomic stability, health and primary education, higher education and training, goods and labor market efficiencies, financial market sophistication, technological readiness, market size, business sophistication, and innovation.

According to the 2012-13 results, out of 144 countries, Switzerland displayed the highest overall ranking with the score of 5.72. The top 10 is dominated by a number of European countries including Finland, Sweden, the Netherlands, Germany, and the United Kingdom. Three Asian economies along with the United States also are in the top 10, with Singapore remaining the second-most competitive economy in the world, and Hong Kong SAR and Japan placing 9th and 10th.
The least competitive countries in 2012 include Yemen, Guinea, Haiti, Sierra Leone, and Burundi in rank positions 140-144, respectively. In 2010, the top scoring countries were Switzerland, Sweden, Singapore and the United States, while the lowest rankings were allocated to Burundi, Angola, and Chad (GCR, 2010).

**Human Development**

Foreign direct investment and economic growth has significant associations with human development, educational development, and enrollment (Moe, 2008). Human development creates an environment in which people can develop their full potential (HDR, 2013). The capabilities for human development include the ability to lead long and healthy lives, be knowledgeable, have access to the needed resources and be able to participate in the life of the community (HDR, 2013). A country’s economic growth and investment in production promote economic development, which lead to improvements in the living standards of people (Moe, 2008).

The United Nations Development Program publishes its annual Human Development Report, which provides county specific information on human development. The Human Development Index (HDI) is a summary measure of human development, which is defined as the average achievements in a country in three basic dimensions: a long and healthy life (health), access to knowledge (education) and a decent standard of living (income) (UNDP, 2012). The 2013 HDI report included 186 countries and territories. Although human development varies widely between rich and poor countries, there are certain common trends displayed by many countries including progress in education, gender equality and women’s empowerment (HDR, 2013).

According to the Human Development 2012 rankings, Norway received the highest score, followed by Australia, the United States and Netherlands, while Congo, Niger and Mozambique were ranked the lowest among participating countries. Top and bottom rankings in 2010 mirrored those in 2012 (HD Index, 2012).

**Corruption**

In the international business arena, corruption is difficult to define and control. The perception of what is right and wrong, morally and legally, varies between different cultures (Robertson, Gilley, and Crittenden, 2008; Wines and Napier, 1992). Corruption is a comprehensive term for the myriad forms of corrupt activities that occur on a global scale (Robertson, Gilley, and Crittenden, 2008). Al-Sadig (2009) identified corruption as paying bribes to corrupt governments to get "favors" including licenses, tax assessment, permits or police protection. Bribery is a widespread phenomenon in international business that raises serious moral and
political concerns, undermines good governance and economic development, and
distorts international competitive conditions (OECD, 2012b).

Generally, corruption is viewed as an additional cost of doing business. Therefore,
it decreases the profitability of investment and should be taken into account (Al-
Sadig, 2009). Transparency International defines corruption as “the abuse of
entrusted power for private gain.” Thirty-nine countries adopted the 2009 Anti-
Bribery Recommendations by Organization for Economic Co-operation and
Development (OECD, 2012b). The OECD Convention establishes a peer-driven
monitoring mechanism to ensure the implementation of the international
obligations that countries have taken on under the Convention.

‘Perceived corruption,’ published by the Transparency International, is the
measurement index which is commonly used to compare levels of corruption
between countries. It includes the perceptions of country analysts, business
people or the general public (TI, 2012). Transnational corporations prefer
countries with well-developed market legislation, favorable investment regulations,
and a certain degree of security (Kenisarin and Andrews-Speed, 2008).

Kersan-Skabic and Orlic (2007) investigated countries in Central and Eastern
Europe and found that the important FDI determinants consist of traditional
variables (GDP and openness), the development of infrastructure, and the level of
corruption, tax rates and negotiations. For the Western Balkan countries, the FDI
inflow is influenced by wage level, privatization, the level of corruption, and the
signing of agreements with the EU (Kersan-Skabic and Orlic, 2007).

The corruption and FDI inflows link is not well defined. While some research
findings indicate a negative relationship, others find either positive or no
relationship at all. For example, Al-Sadig (2009) demonstrated that a one-point
increase in the corruption level leads to a reduction in per capita FDI inflows by
about 11%. On the other hand, Haksoon (2010) found that countries with a high
level of corruption of government and low level of democracy have higher FDI
inflows.

Politically unstable countries tend to attract more capital flows from developed
countries. Lucas (1990) provided an explanation for this phenomenon by
investigating the Law of Diminishing Returns, which implies that the marginal
productivity of capital is higher in less productive or poor economies due to the
differences in the production and capital per worker. Since the capital flow is free
and competitive, the new investment will occur in poor economies.

The Corruption Perceptions Index (CPI) has been published annually by
Transparency International since 1995. The CPI ranks countries by their perceived
levels of corruption, as determined by expert assessments and opinion surveys.
The CPI index is based on data and sources originating from independent institutions such as Asian Development Bank, African Development Bank, Bertelsmann Transformation Index, Country Policy and Institutional Assessment, and others. The CPI measures the overall extent of corruption (frequency and/or size of bribes) in the public and political sectors. Countries with the lowest score are perceived to have a greater level of corruption among countries included in the list.

The 2012 CPI ranking consisted of 176 countries. "Two-thirds of the 176 countries ranked in the 2012 index score below 50, showing that public institutions need to be more transparent, and powerful officials more accountable" (CPI, 2012). The highest 2012 ranks were given to Denmark, Finland and New Zealand, while the lower scores were ranked by Afghanistan, North Korea and Somalia. The United States was ranked number 19. In 2010, the highest ranks were given to Denmark, New Zealand and Singapore, while the lower scores were ranked by Somalia, Myanmar and Afghanistan (CPI, 2012). The United States was ranked number 22.

Methodology

The main objective of this study is to explore which of the Dunning's location-specific advantage of host countries, presented as composite indices, better predict the level of inward FDI. Those composite determinants include Global Competitiveness index, Human Development index and Corruption Perception index.

Data was obtained from the corresponding annual reports and databases displaying 2010 statistics. FDI data was provided by the United Nations Conference on Trade and Development (UNCTAD, 2010), the Global Competitiveness 2010 Index was collected from the Global Competitions Report 2010-2011 (GCR, 2010), the Human Development 2010 Index was extracted from the International Human Development Indicators Database (HD Index, 2012), and the Corruption Perception 2010 Index was collected from the Transparency International Corruption Perception Index Database (CPI, 2012).

While 2010 is characterized as a recovery period for the U.S. economy, the global economy was still enduring the backlash of the financial crisis. Because of this, 2010 data were selected for analysis due to a better understanding what host country determinants might be imperative for the inward FDI during the recession period and afterwards. Cross-sectional analysis included one specific point in time and is used to support inferences of cause and effect.

First, the overall analysis was conducted. The initial sample size included 169 countries. However, not all countries reported data for all researched variables and this hurdle resulted in the final sample size of 129 countries.
Second, the countries were further grouped into two: the Organization for Economic Co-operation and Development (OECD) member countries, and non-OECD countries. The OECD was formed in 1960 when 18 European countries and the United States and Canada joined forces in global development (OECD, 2012b). OECD member countries jointly identify, analyze and promote policies to solve common problems. Examples of international cooperation include combating bribery, arrangements for export credits, the treatment of capital movements, and other.

Currently there are 34 member countries, which include mostly the advanced economies. Those 34 countries employ common standards, guidelines and models such as the application of bilateral treaties on taxation, cross-border co-operation in enforcing laws against spam, or corporate governance or environmental practices. Therefore, those countries might have different results in regards to FDI determinates. The non-OECD sub-group sample size consists of 95 countries.

Exhibit 2: OECD Members and Partners

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Australia</td>
<td>18</td>
<td>Japan</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Austria</td>
<td>19</td>
<td>Korea</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Belgium</td>
<td>20</td>
<td>Luxembourg</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Canada</td>
<td>21</td>
<td>Mexico</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Chile</td>
<td>22</td>
<td>Netherlands</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Czech Republic</td>
<td>23</td>
<td>New Zealand</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Denmark</td>
<td>24</td>
<td>Norway</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Estonia</td>
<td>25</td>
<td>Poland</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Finland</td>
<td>26</td>
<td>Portugal</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>France</td>
<td>27</td>
<td>Slovak Republic</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Germany</td>
<td>28</td>
<td>Slovenia</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Greece</td>
<td>29</td>
<td>Spain</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Hungary</td>
<td>30</td>
<td>Sweden</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Iceland</td>
<td>31</td>
<td>Switzerland</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Ireland</td>
<td>32</td>
<td>Turkey</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Israel</td>
<td>33</td>
<td>United Kingdom</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Italy</td>
<td>34</td>
<td>United States</td>
<td></td>
</tr>
</tbody>
</table>

*Source: http://www.oecd.org/general/listofoecdmemberscountries-ratificationoftheconventionontheoecd.htm*

Stepwise multiple regressions were conducted for the 129 countries as a whole, and for two separate sub-groups to determine which independent variables (global competitiveness, human development, and corruption) were the predictors of inward Foreign Direct Investment (FDI). Stepwise multiple regression is an
exploratory technique, where one independent variable is added at a time and checked for significant improvement to predict the dependent variable.

At each step, tests are performed to determine the significance of each independent variable already in the equation (Mertler and Vannatta, 2005). If a new variable entering into the analysis is measuring much of the same construct as another, then the first variable may no longer contribute anything to the overall analysis and, therefore, would be dropped out of the analysis.

Results

The results of descriptive statistics and correlational analyses for overall 129 countries demonstrated that near multicollinearity exists between the three independent variables. Therefore, stepwise regression technique was applied. Stepwise regression analysis indicated an overall model of two variables (GCI and CPI) that predicts inward FDI (see Exhibit 4). The final regression model accounts for 26.5% of variance in FDI and is significant in the prediction of inward FDI.

Regression Model

\[ \text{FDI}_i = \beta_0 + \beta_1 \text{GCI}_i + \beta_2 \text{CPI}_i = -69,433 + 0.870 \text{GCI}_i - 0.457 \text{CPI}_i \]  
standardized coefficients)

The \( \beta_0 \) refers to the value of the regression equation when the independent variables are set to zero to establish a base. The \( \beta \)-values indicate the relationship between FDI and each predictor, such as Global Competitiveness Index and Corruption Perception Index. The standardized coefficients are obtained when all variables are on the same scale, which helps to demonstrate which coefficient has more of an effect.

Global Competitiveness standardized coefficient is 0.870, meaning for every unit increase in GCI we can expect a 0.87 point increase in FDI. The negative standardized coefficient for the Corruption Perception Index demonstrated that for every unit decrease in CPI, we can expect a 0.457 point increase in FDI.

Stepwise regression analysis results for 34 OECD members indicate an overall model of two variables (GCI and CPI) that predicts inward FDI (see Exhibit 4). The final model accounts for 31.4% of variance in FDI and is significant in the prediction of inward FDI.

Stepwise regression analysis results for 95 non-OECD members indicate an overall model of three variables (GCI, CPI, and HDI) that predicts inward FDI (see Exhibit 5). The final model accounts for 25% of variance in FDI and is significant in prediction of inward FDI. While the non-OECD group model includes more
variables, it explains less variance. The statistics for the CPI is particularly notable as one tends to associate corruption with the non-OECD group.

**Discussion of the Results**

The study analyzed three samples - an overall sample of 129 countries and two sub-groups: OECD members of 34 countries and 95 non-OECD member countries. The initial sample size was separated into two groups because OECD countries have polices and agreements in place for cooperation on international issues. This favorably affects the investors' confidence and, therefore, influences FDI determinants (Serin and Caliskan, 2010).

The overall results for a sample for 129 countries demonstrated that the host country's global competitiveness and the level of corruption are significant predictors of inward FDI for all studied countries, and accounts for 26.5% of variance in FDI. However, the Human Development Index did not contribute to the overall analyses and, as a result, was dropped out of analyses.

The possible explanation is that GCI and HDI are highly correlated constructs. HDI components such as life expectancy and educational achievement are similar to the GCI components for health, primary and higher education, and training. Therefore, those two determinants measure similar constructs and will limit their combined contribution to explain variance in FDI.

The OECD 34 member countries results are similar to the overall results. FDI determinants, such as host country global competitiveness and the level of corruption, are significant predictors of inward FDI and account for 31.4% of the variance in FDI, which is higher than the FDI variance for the overall countries. Once more, Human Development Index did not provide any contribution to the overall analyses and again was dropped out of the model.

In contrast, the non-OECD 95 member countries demonstrated slightly different results. All three composite determinates (GCI, CPI, and HDI) were significant predictors of inward FDI and accounted for 25% of variance. According to the World Investment Report (2012), developing and transition economies attract half of global FDI inflow. For example, China has been the largest developing country recipient for FDI behind the United States. Other non-OECD countries with large inward FDI investments include Russia, Saudi Arabia, India, and Brazil.

The results demonstrated that the corruption index explained less variance for non-OECD countries. However, many of those countries are often cited as being more corrupt and less transparent. This goes back to Lucas’s (1990) explanation that the capital flow is based on competition, and therefore, new investments will take place in emerging economies. The effect of HDI for non-OECD countries is
consistent with Noorbakhsh, Paloni and Youssef (2001) who researched human capital and FDI inflows for developing countries, and found that developing countries could enhance their FDI attractiveness by establishing policies that build up human resource capabilities and raise the level of local skills.

Research Limitations and Directions

This paper has investigated three composite determinants on inward FDI based on data from 2010; however, even the discover of statistically significant relationships does not establish causality between the variables. In fact, for global indices utilized in this and similar studies, it is very likely that the causal relationships are quite complex.

The basic premise behind a host country’s deliberations to attract FDI through policy action is that those FDI friendly initiatives will create a virtuous cycle where rising competitiveness and human development (education, health, etc.) attract more FDI that in turn further improves competitiveness. Conversely, some critics have argued that rapid inflows of FDI and foreign aid increase the possibility of corruption if certain policy controls are not in place (Easterly, 2002; Moyo, 2009).

To establish any true causal relationships between the host country determinants and inward investment, a time-series analysis should be conducted that compares current FDI in time (t) to FDI determinants in an earlier time period (t-1),...n (Dunning and Zhang, 2008). Given the possible complexity of the causality, structural equation modeling could be employed to identify two-way relationships as well as mediating and moderating relationships.

Conclusion

This study has investigated the role of Global Competitiveness, Human Development and Corruption Perception for predicting the level of inward FDI. The evidence shows that those composite variables account for overall 27% in attracting inward FDI. However, there are many other factors which have an effect in regards to FDI.

Local governments try to implement policies to attract FDI because of its large benefit to country’s economic development. Private investment is an important source for knowledge and technology transfer, for job creation and for an increase in country’s overall productivity and competitiveness (Reiter and Steensma, 2010). This in turn contributes to poverty reduction through a country's economic growth and prosperity.
The empirical results of this study confirmed the findings that a country’s global competitiveness and the level of corruption are important determinants of inward Foreign Direct Investment. The country’s global competitiveness represents the nations’ economic environment as well as its capability to achieve and sustained prosperity and growth (GCR, 2012).

Corruption is considered to be an additional cost of conducting business, which in turn reduces the profitability of investment. More competitive economies tend to be able to produce higher levels of income for their citizens. The productivity level determines the rate of return obtained by investments including physical, human, and technological. The rates of return are the fundamental drivers of the growth rates of the economy; therefore, a more competitive economy will likely grow faster (GCR, 2012).

Moreover, this research found that non-OECD countries had an additional significant FDI determinant – the Human Development Index. Human capital is an important location-specific advantage of developing countries (Noorbakhsh, Paloni and Youssef, 2001). Human Development variables, such as life expectancy, educational achievement, and GDP per capita, are critical factors for non-OECD countries to attract FDI.

This research provides value to trans-national corporations, which adopt global strategies including the complex decisions to select a location for their investment. While these indexes do not capture all of the information that would be pertinent to a firm’s decision to enter a specific country, they do provide a broad means to screen for suitability.

This screening might be particularly important for firms that are relatively new to international activity. Because the indexes are generally stable over time, the results of this study will be of interest to local governments who formulate policies to improve governance transparency, infrastructure, financial markets, technological readiness, business sophistication, and innovation. Additionally, non-OECD countries should focus on improving local skills, health, and education in order to build up their human resource capabilities and, thereby, increase labor market efficiencies.

Business leaders should identify obstacles in attracting FDI and implement strategies to overcome them. Noorbakhsh, Paloni and Youssef (2001) stated that the growth of domestic markets, liberalization policies, stable macroeconomic environment, and supportive business environment, including regulation of corruption activities, provide favorable conditions to increase foreign investor’s confidence, which in turn attract Foreign Direct Investment.
### Appendix

#### Exhibit 3: Regression Analysis Results for Overall Countries

**Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>R Square Change</td>
</tr>
<tr>
<td>1</td>
<td>.467(^a)</td>
<td>.218</td>
<td>.212</td>
<td>15180.441</td>
<td>.218</td>
</tr>
<tr>
<td>2</td>
<td>.515(^b)</td>
<td>.265</td>
<td>.254</td>
<td>14776.696</td>
<td>.047</td>
</tr>
</tbody>
</table>

#### Change Statistics

<table>
<thead>
<tr>
<th>Model</th>
<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.218</td>
<td>35.467</td>
<td>1</td>
<td>127</td>
<td>.000</td>
</tr>
<tr>
<td>2</td>
<td>.047</td>
<td>8.035</td>
<td>1</td>
<td>126</td>
<td>.005</td>
</tr>
</tbody>
</table>

\(^a\) Predictors: (Constant), GCI
\(^b\) Predictors: (Constant), GCI, CPI

#### ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>8.173E9</td>
<td>1</td>
<td>8.173E9</td>
<td>35.467</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>2.927E10</td>
<td>127</td>
<td>2.304E8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.744E10</td>
<td>128</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Regression</td>
<td>9.928E9</td>
<td>2</td>
<td>4.964E9</td>
<td>22.733</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>2.751E10</td>
<td>126</td>
<td>2.184E8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.744E10</td>
<td>128</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) Predictors: (Constant), GCI
\(^b\) Predictors: (Constant), GCI, CPI

\(c\). Dependent Variable: FDI
### Exhibit 4: Regression Analysis Results for OECD Countries

**Model Summary: OECD Countries**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
<th>ANOVA: OECD Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>R Square Change</td>
<td>Sum of Squares</td>
</tr>
<tr>
<td>1</td>
<td>.401&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.161</td>
<td>.135</td>
<td>22926.808</td>
<td>.161 6.149</td>
<td>1 32</td>
</tr>
<tr>
<td>2</td>
<td>.561&lt;sup&gt;b&lt;/sup&gt;</td>
<td>.314</td>
<td>.270</td>
<td>21060.504</td>
<td>.153 6.923</td>
<td>1 31</td>
</tr>
</tbody>
</table>

<sup>a</sup> Predictors: (Constant), GCI  
<sup>b</sup> Predictors: (Constant), GCI, CPI  

**ANOVA: OECD Countries**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>3.232E9</td>
<td>1</td>
<td>3.232E9</td>
<td>6.149</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>1.682E10</td>
<td>32</td>
<td>5.256E8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2.005E10</td>
<td>33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Regression</td>
<td>6.303E9</td>
<td>2</td>
<td>3.151E9</td>
<td>7.105</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>1.375E10</td>
<td>31</td>
<td>4.435E8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2.005E10</td>
<td>33</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> Predictors: (Constant), GCI  
<sup>b</sup> Predictors: (Constant), GCI, CPI  
<sup>c</sup> Dependent Variable: FDI
Exhibit 5: Regression Analysis Results for Non-OECD Countries

Model Summary: Non-OECD Countries

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>R Square Change</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Change</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>df1</td>
</tr>
<tr>
<td>1</td>
<td>.356a</td>
<td>.127</td>
<td>.118</td>
<td>11077.025</td>
<td>.127</td>
</tr>
<tr>
<td>2</td>
<td>.465b</td>
<td>.216</td>
<td>.199</td>
<td>10551.792</td>
<td>.089</td>
</tr>
<tr>
<td>3</td>
<td>.500c</td>
<td>.250</td>
<td>.225</td>
<td>10381.135</td>
<td>.033</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), GCI  
b. Predictors: (Constant), GCI, CPI  
c. Predictors: (Constant), GCI, CPI, HDI

ANOVA: Non-OECD Countries

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>1</td>
<td>1.660E9</td>
<td>13.530</td>
<td>.000a</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>93</td>
<td>1.227E8</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>94</td>
<td>1.307E10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Regression</td>
<td>2</td>
<td>2.828E9</td>
<td>12.700</td>
<td>.000b</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>92</td>
<td>1.113E8</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>94</td>
<td>1.307E10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Regression</td>
<td>3</td>
<td>3.264E9</td>
<td>10.097</td>
<td>.000c</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>91</td>
<td>1.078E8</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>94</td>
<td>1.307E10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), GCI  
b. Predictors: (Constant), GCI, CPI  
c. Predictors: (Constant), GCI, CPI, HDI  
d. Dependent Variable: FDI

Large Quotes

Foreign direct investment (FDI) can be defined as...an aggregate flow of capital and technology across international borders or a transfer of resources from one location another.

The United Nations World Investment Report (2012) stated that prospects for foreign direct investment continue to have high risks and uncertainties.

The implementation of advanced technologies influenced the shift of FDI towards capital, knowledge, and skill intensive industries, which requires a well-educated pool of labor.

...productivity improvements and private sector investment will be key for the global economies’ improvements.
The perception of what is right and wrong, morally and legally, varies between different cultures.

Transnational corporations prefer countries with well-developed market legislation, favorable investment regulations, and a certain degree of security.

Corruption is considered to be an additional cost of conducting business, which in turn reduces the profitability of investment.

References


Kersan-Skabic, I., and Orlic, E. (2007). Determinants of FDI inflows in CEE1 and Western Balkan countries (Is accession to the EU important for attracting FDI?). *Economic and Business Review for Central and South - Eastern Europe, 9*(4), 333-353.


OECD (2012b). OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, retrieved July 1, 2012 from http://www.oecd.org/document/20/0,3343,en_2649_34859_2017813_1_1_1_1,00.html


