JDI JOURNAL OF DEVELOPMENT AND INTEGRATION

JOURNAL OF DEVELOPMENT AND INTEGRATION
No. 79 (2024) 104-115 I jdi.uef.edu.vn

Differences in macro indicators and culture between home and host countries: The effects on FDI inflow of Vietnam

Lam Thanh Phi Quynh*
Ho Chi Minh City University of Economics and Finance, Vietnam

KEYWORDS

Attracting FDI,
corruption index difference,
economic freedom,
culture distance,
population size,
GDP per capita.

ABSTRACT

Foreign direct investment (FDI) plays an important role in promoting the development of emerging economies. This study evaluates the impact of differences in macroeconomic factors, institutional quality and culture between the country deploying FDI and Vietnam on FDI inflow of Vietnam. The data sample includes 32 main partners deploying FDI in Vietnam in the period from 2002 to 2021. The author simultaneously uses Random effect, Ordinal least square regression with Driscoll and Kraay and Generalized Method of Moments (GMM) regression method on the panel data sample to ensure the rigor of the research results. The research contributes to the FDI empirical studies by showing the heterogeneities between the home country and Vietnam such as cultural distance, differences in corruption level, economic freedom, GDP per capita and population size impact the inflow FDI of Vietnam. The results have important implications for Vietnam government to develop appropriate policies attracting FDI in the context of globalization.

1. Introduction

After Vietnam opened its economy and integrated internationally, the Vietnamese government always focus on attracting FDI. Total registered foreign investment capital in Vietnam grew continuously in the period 2010 - 2019. Total registered FDI in 2019 reached 38.9 billion USD. In 2020, due to the impact of the Covid -19 epidemic, FDI capital decreased to 31.04 billion USD. But after that, registered FDI capital recovered in 2021 and 2022 reaching 38.85 billion USD and 29.28 billion USD respectively.

Foreign investment capital in Vietnam plays an important role in promoting economic growth, contributing to total export turnover, enhancing employment opportunities and improving people's lives. On the other hand, attracting foreign investment also contributes to increasing budget revenue and improving the national balance of payments.

During the period 2011 - 2015, the contribution level of the FDI sector to Vietnam's GDP reached 21.52%. This ratio increased to an average of 25.1% in the period 2016 - 2020. Besides, the contribution proportion of the FDI sector in total

* Corresponding author. Email: *quynhltp@uef.edu.vn*

https://doi.org/10.61602/jdi.2024.79.12
Received: 01-Sep-24; Revised: 03-Nov-24; Accepted: 13-Nov-24; Online: 29-Nov-24
ISSN (print): 1859-428X, ISSN (online): 2815-6234

export turnover has increased rapidly, from 30% in 1997 - when Vietnam joined ASEAN to 65% in the period 2011 - 2015 and about 71% in the period 2016 - 2020. For the labor market, the FDI sector has contributed to creating jobs, improving the quality of human resources and bringing high income to workers. In 2011, the FDI sector provided jobs for 2.1 million workers (accounting for 4.2% of the total number of labor force), by 2015 it was about 3.2 million workers (accounting for 6%) and increased to 4.59 million workers in 2021 (accounting for 9.35%). In addition, the FDI sector also contributes positively to the state budget. On average in the period 2011 - 2015, the FDI sector contributed about 12.65%. In the period 2016 - 2022, the contribution was 13.8% of total state budget revenue.

Derived from the OLI (eclectic paradigm) theory of Dunning (1980), FDI can be categorized into 4 types: market-seeking, resource-seeking, efficiency-seeking, and strategic-asset seeking. For the purpose of searching for markets, multinational corporations (MNCs) often deploy FDI to countries with large populations and high per capita income (Qi et al., 2020). In addition, MNCs also expand FDI with the purpose of finding input factors at low costs. The host countries which have abundant raw materials and labor force can attract a lot of FDI inflow (Haiyue & Manzoor, 2020; Cui & Xu, 2019). For efficiency seeking purpose, MNCs invest in countries with stable business environments and good institutional quality. MNCs are more likely to invest in host countries with transparent, predictable, and business-friendly environments (Qamruzzaman, 2023).

The motivation for MNCs to deploy FDI in developing countries like Vietnam has many differences among researchers. For example, study by Meyer and Nguyen (2005) suggests that economic factors such as: the goal of expanding consumption markets, finding raw materials, enhancing business efficiency and taking advantage of government tax policy incentives are important factors attracting FDI inflows in Vietnam. Besides, study by Dang & Nguyen (2021) shows that factors such as culture and business relationship network are important factors that help attract FDI in Vietnam. However, the author finds that there has been no study that has focused on analyzing the differences between macroeconomic factors, culture and institutional quality between the home country and Vietnam on the inflow FDI of Vietnam. This research fills this gap by investigating the impact of differences in macroeconomic factors, culture and institutional quality on attracting FDI in Vietnam. The research may help the Vietnamese government provide appropriate solutions to increase the FDI attractiveness of Vietnam in the context of international economic integration and competition in attracting FDI of other countries.

The remaining contents of this paper are structured as follows: in Section 2, I provide the theoretical background of FDI, literature review, research hypotheses. In this section, I also present the research methodology including research model, the data sample and data analysis methods. In section 3, I describe the research result and discussion. In section 4, I present the policy implications and conclusion.

2. Theoretical background and research methodology

2.1. Theoretical background and literature review

2.1.1. Theoretical background of FDI decision

There are many different theories explaining the decision to deploy FDI of MNCs. Within the scope of this study, the author analyzes four commonly used fundamental theories to explain MNCs' decisions to deploy FDI capital, including: the International Product Life Cycle theory, the OLI (eclectic paradigm), the market imperfection theory and the capital market theory.

2.1.1.1. The International Product Life Cycle (IPLC) theory

The International Product Life Cycle (IPLC) theory was introduced by Raymond Vernon in 1966. This theory explains how FDI is influenced by the life cycle of a product. According to this theory, the life cycle of a product consists of three stages: new product, maturing product, and standardized product.

In the new product stage, the product is typically developed and first produced in the home country. MNCs mainly focused on exporting the product to

foreign markets to test its viability and gain market acceptance.

As the product matures and demand grows, production may be shifted to other countries through FDI to take advantage of lower production costs, access to resources, or proximity to key markets.

In the standardized product stage, production may be further shifted to other countries where production costs are lower, and the product is closer to its final consumers. FDI at this stage is driven by the need to stay competitive in the global market.

2.1.1.2. The OLI (eclectic paradigm)

The OLI (Ownership, Location, Internalization) framework, also known as the eclectic paradigm, was developed by economist Dunning (1980) to explain why companies expand into foreign markets. The OLI framework suggests that companies will engage in FDI when they possess ownership advantages, identify attractive locations, and determine those internalizing operations in a foreign market is the most efficient way to exploit their advantages. According to the OLI framework, a firm's decision to engage in FDI is influenced by three factors:

Ownership advantages: these are unique advantages that a company possesses, such as technology, brand reputation, management skills, or exclusive access to natural resources. Companies seek to leverage these ownership advantages to compete in foreign markets.

Location advantages: these refer to the attractiveness of a foreign market in terms of factors like market size, potential growth, access to resources, labor cost, infrastructure, and political stability. MNCs choose locations where they can best utilize their advantages.

Internalization Advantages: This aspect focuses on the decision of whether to serve foreign markets through exports, licensing arrangements, joint ventures, or establishing wholly-owned subsidiaries. Internalization involves the firm's ability to capture and protect the value created by its ownership and location advantages.

2.1.1.3. The market imperfection theory

The theory of market imperfection (Brewer, 1993) suggests that FDI occurs due to the existence of imperfections in the market, such as imperfect information, economies of scale, and transaction costs.

Imperfect information can lead to a lack of knowledge about foreign markets, making it difficult for firms to enter and compete effectively. In such cases, FDI allows companies to overcome information asymmetry and gain better access to market knowledge.

Economies of scale refer to the cost advantages that firms can achieve by operating on a larger scale. FDI allows companies to exploit these economies of scale by setting up production facilities in foreign markets to serve local demand more efficiently.

Transaction costs, such as tariffs, transportation costs, and cultural differences, can hinder international trade. FDI provides a way for companies to reduce these transaction costs by establishing a physical presence in foreign markets.

2.1.1.4. The capital market theory

The capital market theory referred to as the "currency area theory" is a concept that explains FDI flows based on the notion of currency areas and exchange rate considerations. Based on the work of Aliber (1971), it postulated that FDI in general arose as a result of capital market imperfections. FDI was the result of differences between source and host country currencies. This theory focuses on the impact of exchange rate movements and currency fluctuations on the decisions of MNCs to invest in foreign countries.

According to this theory, firms may choose to invest in foreign countries that share a common currency or are part of a currency union in order to reduce currency risk and transaction costs. By operating within a currency area, firms can mitigate the uncertainty associated with exchange rate fluctuations and streamline their international operations.

Meanwhile, currency area theory suggests that firms may avoid investing in countries with volatile or unpredictable exchange rates, as such conditions can increase the risks and costs associated with doing business abroad. Instead, MNCs may prefer to invest in countries where the currency is stable

and predictable, facilitating their financial planning and decision-making processes.

2.1.2. Literature review and hypotheses development

Studies explaining the causes of FDI can be divided into two main branches.

The first branch show that there are many groups of economic and social factors that influence the FDI decisions of MNCs such as market seeking, resource seeking, and efficiency seeking.

For the purpose of searching for markets, MNCs often deploy FDI to countries with large populations and high per capita income (Qi et al., 2020). In addition, MNCs also deploy FDI with the purpose of finding input factors at low costs. The host countries which have abundant raw materials and labor force can attract a lot of FDI inflow (Haiyue & Manzoor, 2020). Cui & Xu (2019) investigated the effect of conducting FDI on the profitability of Chinese firms in the early stage of internationalization. The authors use archival data of Chinese public listed firms during 2002-2009. The research results showed that the main motive of Chinese enterprises to conduct FDI in other countries is to seek raw materials and labor force with lower price. Therefore, the author forms the following research hypothesis.

Hypothesis 1: the difference in population size between Vietnam and the country deploying FDI capital has a positive impact on FDI capital flows into Vietnam.

For efficiency seeking purpose, MNCs often deploy FDI in countries with stable business environments and good institutional quality. Brada et al. (2019) examined the relationship between FDI and corruption levels in different countries. The authors focused on the impact of corruption on FDI, considering both the corruption level in the host country and the disparities in corruption between the home and host countries. The paper shows that MNCs acquire skills to navigate corruption in their home countries. This factor becomes a competitive advantage when the MCNs operate in similarly corrupt host countries. Their findings indicated that the impact of corruption in the host country, as well as the disparities in corruption levels between the home and host countries, hold substantial statistical and economic importance. Moreover, the study of Qamruzzaman (2023) tries to evaluate the effects of energy, good governance, education, and environmental regulation on inflows of FDI in China for the period 1997-2018. The authors implemented some panel data econometrical technique including panel unit root, cointegration, CS-ARDL, and asymmetric ARDL.The result shows that companies are more likely to invest in host countries with transparent, predictable, and business-friendly environments. The result also revealed a positive association between explanatory variables, i.e., education, clean energy and inflows of FDI in China. In these studies, the institutional quality of countries is often measured through the country's Corruption Index. The Country Corruption Index, often referred to as the Corruption Perceptions Index, is based on expert assessments and opinion surveys that gather data from a variety of sources, including business people, analysts, and the general public. Therefore, the research tries to test the following research hypothesis.

Hypothesis 2: the difference in corruption index between Vietnam and the country deploying FDI has a negative impact on Vietnam's FDI attraction.

Meanwhile, some other studies have been conducted across diverse contexts to examine the influence cultural and social determinants on bilateral FDI. Nasir et al., (2019) attempts to shed light on the ecological consequences (CO2 emission) of economic growth, FDI and financial development in the selected ASEAN-5 economies. These authors employed a set of quantitative techniques including Dynamic Ordinary Least Squares (DOLS) and Fully Modified OLS (FMOLS) on panel data of the period from 1982 to 2014. The results of this study show that cultural similarity between the deploying and receiving countries of FDI has a positive impact on FDI inflows. Cultural compatibility between the home country and host country can facilitate business operations, communication, and relationship-building. MNCs often prefer investing in countries with cultural similarities to mitigate potential challenges in adapting to a different cultural context. Tang (2012) used panel data comprising bilateral FDI flows between 21 OECD countries, as well as FDI from these OECD countries to 14 non-OECD countries from 1980 to 2000. He presented that difference of cultural distances has

impact on FDI as it increased when flowing from low to high uncertainty avoidance countries, the similar result also appeared in case of masculinity level. In contrast, the results of Dheera-aumpon and Changwatchai (2020) indicated that cultural distance between Thailand and 32 source countries does not act as a deterrent, but rather leads to an increase in FDI stocks. Cultural factors in Thailand do not impede the operations of foreign companies; instead, they create favorable investment opportunities. Therefore, the author decided to test the following research hypothesis.

Hypothesis 3: cultural differences between FDI capital deployment partners and Vietnam have a negative impact on FDI capital flows into Vietnam.

The second branch of literatures examine the heterogeneity in macro economic factors, cultural and social aspects between home country and host country on FDI flows.

First, the difference in macro economic factors between host and home countries can affect the FDI decisions. Cui & Xu (2019) show that there are three main types of FDI: market-seeking FDI, resource-seeking FDI and efficiency-seeking FDI. In terms of market-seeking FDI, differences in market conditions between the home country and host country can drive FDI. When a host country offers a larger market size, higher purchasing power, or unique consumer preferences, MNCs may choose to invest there to gain access to these opportunities (Qi et al., 2020).

Besides, heterogeneity in resources, including natural resources, technology, and skilled labor, can influence FDI, called resource-seeking one. Companies may invest in host countries that possess specific resources or capabilities that are scarce or more cost-effective compared to their home country (Cui & Xu, 2019). For instance, a company may invest in a host country rich in natural resources to secure a stable supply of raw materials. Companies seek efficiency gains by investing in host countries with lower labor costs or greater technological capabilities (Haiyue & Manzoor, 2020). This allows them to reduce production costs, enhance competition, and access skilled labor pools. Offshoring and outsourcing strategies are often driven by these efficiency-seeking motives. Therefore, the author formed two opposite research hypotheses:

Hypothesis 4: The difference between GDP per capita of Vietnam and the country deploying FDI capital has a negative impact on FDI inflows in Vietnam.

Hypothesis 5: The difference between GDP per capita of Vietnam and the home country has a positive impact on FDI inflows in Vietnam.

Second, heterogeneity in institutional frameworks, business regulations, and legal systems can influence FDI. MNCs are more likely to invest in host countries with transparent, predictable, and business-friendly environments (Qamruzzaman, 2023). Stable political systems, strong rule of law, protection of property rights, and effective contract enforcement are attractive features for investors. Differences in these institutional factors can create barriers or opportunities for FDI. Álvarez et al. (2018) examined the influence of national institutional quality on bilateral FDI flows in 186 countries between 1996 and 2012 using the Poisson Pseudo-Maximum Likelihood estimate methods. The attempt demonstrated that the institutional distance between home and host countries affects bilateral FDI significantly.

Hypothesis 6: The difference in the level of economic liberalization between Vietnam and the country deploying FDI capital has a negative impact on FDI inflows in Vietnam.

2.2. Research methodology

2.2.1. Data analysis methods

The research employs three econometrical approaches including Random Effects Model (REM), OLS regression with Driscoll Kray standard error method and Generalized Method of Moments (GMM) regression to ensure the rigor of the research results. Empirical studies on factors affecting FDI such as Nasir et al., (2019); Haiyue & Manzoor, (2020); Qamruzzaman (2023) also use some different regression methods to ensure the robustness of the research.

First, the study uses Random effects regression in panel data with robust option in Stata to fix autocorrelation and serial correlation in panel data. This method can account for both individual-specific heterogeneity and time-specific heterogeneity in a panel dataset. In a random effects regression model, individual-specific effects are assumed to

be random variables that are uncorrelated with the independent variables in the model. This allows for the estimation of the impact of time-varying variables on the dependent variable while also accounting for individual-specific differences.

Second, this study utilizes the OLS regression with Driscoll and Kraay (1998) (DK) standard error method to examine the relationships among the variables. The DK estimator is a non-parametric technique that offers more flexibility and a broad time dimension. It is suitable for both balanced and unbalanced data sets and can handle missing values. The DK method calculates average values by multiplying the independent variables with residuals. These averaged values are then employed in a weighted HAC estimator to generate standard errors that account for cross-sectional dependence.

Third, the author uses Generalized Method of Moments (GMM) regression. This is a statistical technique commonly used in panel data analysis to estimate the parameters of a model when certain assumptions underlying traditional regression methods may not be hold. GMM estimation was formalized by Hansen in 1982, and since has become one of the most widely used methods of estimation for models in economics and finance. Unlike maximum likelihood estimation (MLE), GMM does not require complete knowledge of the distribution of the data. Only specified moments derived from an underlying model are needed for GMM estimation. When the distribution of the data is known, MLE can be computationally very burdensome whereas GMM can be computationally very easy. In models for which there are more moment conditions than model parameters, GMM estimation provides a straightforward way to test the specification of the proposed model. This is an important feature that is unique to GMM estimation.

2.2.2. Sample and data collection

Time periods of the sample is from 2002 to 2021. Large-scale FDI investment partners in Vietnam include 32 countries such as: Argentina, Australia, Brazil, Japan, Chile, China, Denmark, Finland, France, Germany, India, Indonesia, Ireland, Israel, Italy, Malaysia, Mexico, Nigeria, Peru, Philippines, Poland, Portugal, Russia, Singapore, US, South Korea, Spain, Sweden, Switzerland, Thailand, Ukraine and United Kingdom. The database of this study is retrieved from the IMF, World Bank, the Heritage Foundation. The data sample of this study is balanced panel data.

2.2.3. Research model

Based on theoretical background of FDI decision and the empirical studies of Qi et al (2020); Haiyue & Manzoor (2020); Cui & Xu (2019), the author selected macro factors of Vietnam's economy that have an impact on Vietnam's FDI inflows to include in the research model. On the other hand, the study of Nasir et al (2019) helped the author incorporate cultural and social factors into the research

Table 1. The definitions and data source of the variables in the research model

Symbols	Definitions	Data source
FDI_in	Logarithm FDI, net inflows to Vietnam (BoP, current USD)	IMF
D_GDPPC	Vietnam's GDP per capita is divided by the partner country's GDP per capita	World Bank
Dis_vnj	Distance between Vietnam and home country	Distancefrom
D_POP	Vietnam's population is divided by the partner country's population	World Bank
D_EF	Vietnam's Economic freedom index is divided by the partner country's economic freedom index	The Heritage Foundation
D_COR	Vietnam's control of corruption index is divided by the partner country's control of corruption index	World Bank
D_CUR	Cultural distance between Vietnam and home country, are calculated from 4 factors: Power distance, Individualism, Masculinity, Uncertainty avoidance	Hofstede
Vnmacro: Macro economic factors of Vietnam at time t-1	L1.FDI_VN L1.POP_VN L1.GDPPC_VN L1.EF_VN L1.COR_VN	World Bank

Table 2. Descriptive statistics results of variables in the research model

Variables	Mean	Std. Dev.	Min	Max
FDI_in	4.18	6.50	-34.78	81.25
D_GDPPC	0.31	0.45	0.01	2.33
Dis_vnj	8298.07	5222.35	392.39	19366
D_POP	4.74	5.64	0.06	20.38
D_EF	0.795	0.131	0.519	1.232
D_COR	-1.08	1.15	-3.21	0.94
D_CUR	59.72	19.35	21.45	83.99
L1.FDI_VN	4.164	6.562	-34.779	81.248
L1.POP_VN	7.322	0.877	2.197	8.214
L1.GDPPC_VN	18.085	1.834	2.197	18.395
L1.EF_VN	50.920	3.112	45.600	58.800
L1.COR_VN	-0.564	0.113	-0.757	-0.352

model that affect the attraction of FDI. Variables representing differences in macroeconomic factors and institutional quality between home countries and host countries are included by the author in the research model based on the research of Qamruzzaman (2023). The research model of this study is proposed as follow:

$$FDI\_in_t = \alpha_0 + \beta_1 Dis + \beta_2 D\_GDPpc_t + \beta_3 D\_POP_t + \beta_4 D\_EF_t + \beta_5 D\_COR_t + \beta_6 D\_CUR_t + \sum_{i=1}^{n} \pi_i VN\ macro_{t-1} + u_t u_t$$

The dependent variable of the research model is the Logarithm of partners' cumulative FDI into Vietnam at time t.

The explanatory variables in the model and their data sources are detailed in Table 1.

The cultural distances between Vietnam and the home countries are measured using four cultural dimensions of Hofstede: Power Distance (PDI), Individualism (IDV), Masculinity (MAS), and Uncertainty Avoidance (UAI). Hofstede's cultural metrics are suitable for international comparisons between cultures, which is why they are commonly used in cross-cultural psychology and international business studies (Nasir et al., 2019). PDI, which stands for Power Distance Index, refers to how a country's citizens perceive and accept the distribution of power within society. In high PDI countries, individuals are aware of their place in the social hierarchy and accept it without discomfort. While IDV reflects how individuals see themselves in relation to society. MAS is reflected in gender roles and modesty. UAI is concerned with how groups approach the unknown. In high UAI countries, there is a fear of the unknown, and such societies are often characterized by precision, structure, and a focus on details. The study uses these dimensions to understand the cultural differences between Vietnam and home countries.

The author uses a composite cultural distance index that follows a standardized Euclidean distance formula to compute the distance between the two countries A and B:

$$d(A,B) = \sqrt{\sum_{i=0}^{p} (z_i(A) - z_i(B))^2}$$

where $z_i(A)$ and $z_i(B)$ represent the standardized values of i characteristic for countries A and B, respectively.

3. Research results and discussion

3.1. Research results

Descriptive statistics and correlation matrix of the variables in the research model are presented in table 2 and table 3, respectively.

The result of Random Effect regression with robust conditions, OLS regression with Driscoll Kray standard error method and Generalized Method of Moments (GMM) regression on research model

Table 3. Unconditional correlation matrix among the variables in the research model

	FDI_in	D_EF	D_GDPPC	GDPPC_VN	POP_VN	Dis_vnj	D_COR	D_CUR	EF_VN	COR_VN	D_POP
FDI_in	1										
D_EF	-0.252***	1									
p-value	0										
D_GDPPC	0.051	0.499***	1								
p-value	0.197	0									
GDPPC_VN	-0.125**	0.267***	0.033	1							
p-value	0.002	0	0.401								
POP_VN	-0.228***	0.082**	-0.177***	0.647***	1						
p-value	0	0.038	0	0							
Dis_vnj	-0.082**	-0.030	-0.328***	0.014	0.031	1					
p-value	0.038	0.446	0	0.722	0.428						
D_COR	-0.188***	0.787***	0.613***	0.078**	0.016	-0.110***	1				
p-value	0	0	0	0.047	0.687	0.005					
D_CUR	-0.070*	-0.264***	-0.525***	-0.012	-0.029	0.418***	-0.474***	1			
p-value	0.079	0	0	0.751	0.459	0	0				
EF_VN	0.006	0.3034*	0.1690*	0.8849*	0.9029*	0	0.0957*	-0.000	1		
p-value	0.889	0	0	0	0	1.000	0.018	0.878			
COR_VN	0.006	0.145***	0.140***	0.669***	0.651***	0	0.086**	0	0.552***	1	
p-value	0.888	0	0.001	0	0	0.890	0.033	0.987	0		
D_POP	0.068**	0.235	0.025*	0.578	0.672	0.786	0.129	0.652	0.214	0.525	1
p-value	0.032	0.167	0.085	0.392	0.120	0.246	0.487	0.782	0.225	0.298	

*Note: *, **, *** denote significant levels at 10%, 5%, and 1%, respectively*

Table 4. The regression result of the research model with different methods

	RE regression		Driscoll Kray		GMM	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
L1.FDI_in	0.333***	0.042	0.4486***	0.116	0.551***	0.034
D_EF	0.562	3.759	-1.557	1.309	-4.206	6.157
D_GDPPC	-1.337	1.256	-1.386**	0.509	-5.196**	2.180
D_POP	0.353***	0.091	0.316***	0.049	1.901***	1.376
Dis_vnj	0.001***	0.000	0.001***	0.000	-3.469***	1.816
D_COR	-0.100	0.631	0.282	0.229	-0.058*	0.019
D_CUR	-0.064***	0.027	-0.054***	0.016	-0.001***	0.000
L1.POP_VN	0.001**	0.002	0.000	0.000	2.092	0.302
L1.GDPPC_VN	-1.354*	0.805	1.301	1.290	0.204	0.084
L1.EF_VN	0.092*	0.125	0.211*	0.121	3.739*	1.730
L1.COR_VN	1.067	1.813	-1.259	2.524	-4.591	6.682
_cons	0.548	3.248	6.905	7.345	-1.286	4.764

*Note: *, **, *** denote significant levels at 10%, 5%, and 1%, respectively*

Table 5. Variance inflation factors of research model's variables

Variable	VIF
FDI_in	1.79
L1_FDI_in	1.84
D_EF	3.62
D_GDPPC	2.27
D_POP	2.35
Dis_vnj	1.29
D_COR	4.87
D_CUR	2.16
L1_POP_VN	3.47
L1_GDPPC_VN	7.83
L1_EF_VN	4.35
L1_COR_VN	1.67

are presented in Table 4.

The regression results of the research model using all three methods show that differences in population size have positive affect on FDI inflow of Vietnam significantly. The cultural difference between Vietnam and the home country also has a negative impact on total accumulated FDI capital of foreign partners in Vietnam with all applied methods. Particularly for the regression results of the model using GMM and Driscoll Kray method, the author found that differences in GDP per capita has a negative impact on FDI inflow of Vietnam. Meanwhile, economic freedom of Vietnam has a positive impact on the FDI flows of foreign partners in all three models. But the heterogeneity of corruption index only shows negative impact on FDI inflow of Vietnam (β= -0.058, p< 0.100) in GMM method. In addition, the coefficients of control variables such as the scale of accumulated FDI capital, economic liberalization index and geographical distance between Vietnam and the country deploying FDI capital all have the level of statistical significance in all three regression methods.

To ensure the reliability of the regression results of the research model on panel data, the author tested the multicollinearity of the explanatory variables by calculating the variance inflation factor (VIF).

The VIFs of all explanatory variables are all less than 5, indicating that there is no multicollinearity in the research model.

To evaluate the appropriateness of the regression model using the Random effect method compared to the Fixed effect method, the author conducted a Hausman test on the regression results of the research model using the above two methods. The hypothesis H_0 of the Hausman test is that the regression model using the Random effect method is more suitable than the Fixed effect method. The Hausman test result showed in table 5 is statistically insignificant at 10% level (Prob>chi2 = 0.1285), showing that the regression model using the Random Effect method is more appropriate than the Fixed effect method.

To test the autocorrelation phenomenon and the heteroscedasticity in the research model, the author

Table 6. The result of Hausman test between Random effect model and fixed effect model

Variables	(b) Fixed	(B) Random	(b-B) Difference	sqrt(diag(V_b V_B)) S.E.
D_EF	6.090	-2.671	8.761	4.130
D_GDPPC	-1.196	-1.152	-0.044	1.457
D_POP	-0.230	0.299	-0.528	0.650
D_COR	-1.800	0.413	-2.213	1.164
Dis_vnj	-1.236	-2.136	-0.900	0.675
L1_FDI_in	0.256	0.491	-0.234	0.018
L1_POP_VN	0.372	0.635	-0.263	.
L1_GDPPC_VN	-0.347	-0.811	0.464	.
L1_EF_VN	0.011	0.162	-0.151	0.017
L1_COR_VN	2.672	1.801	0.871	.
Prob > chi2 = 0.1285				

performed the Wooldridge test and the Breusch and pagan Lagrangian Multiplier test. The result of the Breusch and pagan Lagrangian Multiplier test is not statistically significant (Prob > Chibar2 = 1.000), so the author can conclude that there is no heteroscedasticity in the research model. But the result of the Wooldridge test is statistically significant (Prob > F = 0.000), so the author rejects the hypothesis H_0, the variables in the research model have autocorrelation. Therefore, the author discusses the research results based on the results of OLS regression with Driscoll Kray standard error method and GMM method.

3.2. Discussion

The research result suggests that greater geographical distances between the home and host country can lead to increased FDI inflows. This perspective argues that investors may be motivated to seek out new markets and opportunities in distant countries to diversify their operations, expand their customer base, or access resources that are not available domestically. By investing in geographically distant countries, companies can gain access to new markets, capture unique resources or technologies, and reduce their reliance on a single market. This result is confirmed by Ghazalian & Amponsem (2019). These authors proved that the distance itself may act as a signal of untapped potential and growth opportunities.

Besides, the coefficient of EF_vn is positive and has significant level at 90% in Discroll Kray model and GMM model. This implies that greater economic freedom in Vietnam (the host country) provides a more conducive and stable environment for business operations. When the host country offers a higher level of economic freedom, it signals a commitment to market-oriented policies, reduced regulatory burdens, and increased opportunities for investment. Investors may be attracted to a host country with a higher level of economic freedom, as it often implies a more business-friendly and less restrictive regulatory framework. The research of Brada et al. (2019) also proves that the host countries with higher economic freedom tend to have fewer barriers to trade and investment, promoting free markets and competition. A higher level of economic freedom can result in a more efficient allocation of resources, improving productivity levels, and enhancing business performance. This attracts investors seeking to benefit from a productive and efficient business environment, potentially leading to higher FDI inflows. Conversely, a lower level of economic freedom may deter investors due to excessive bureaucracy, burdensome regulations, and barriers to entry. At the same time, economic freedom often goes hand in hand with a favorable business climate, which can lead to increased market opportunities.

Moreover, a larger difference in population between the home and host country can increase FDI inflows (coefficients of D_POP is positive and has significant levels at 1% in all 3 models). The rationale behind this is that a host country with a significantly larger population may present attractive market opportunities for investors. A larger population can indicate a larger consumer market with potential demand for goods and services, which can incentivize investors to enter or expand their operations in

the host country. This result is consistent with the findings of Haiyue & Manzoor (2020). Besides, these authors show that the large population size of the host country can help MNCs take advantage of low-cost labor to improve production efficiency and enhancing competitiveness in the international market.

The difference in GDP per capita between Vietnam (host country) and home countries has negative impact on FDI inflow to Vietnam. This result shows that when Vietnam's GDP per capita improves compared to the country deploying FDI capital, it will have an impact on attracting FDI from MNCs. This result supports the market-seeking argument of MNCs when deploying FDI. More specifically, MNCs deploying FDI in Vietnam often want to expand their market share and they are very interested in the consumption ability of the Vietnamese people through the GDP per capita indicator. This effect is similar to the results of Qi et al. (2020). These authors prove that a country's high purchasing power is an important factor in attracting FDI.

In addition, cultural distance can impact FDI inflows by influencing the level of familiarity and trust between the investor and the host country. Cultural distance can influence communication styles, business practices, and the understanding of social norms and customs. The result shows that cultural distance has a negative and statistically significant impact on the FDI inflow to Vietnam. The results of the study are similar to the results of Nasir et al., (2019). These authors suggest that when cultural differences are minimal or similar, investors may find it easier to understand and navigate the local business environment, build relationships with local partners, and establish trust with local stakeholders. Higher levels of familiarity and trust can reduce the perceived risks associated with investing in a foreign country, thereby increasing the FDI inflows. Besides, cultural differences can affect communication and coordination between the investors and the host country. Language barriers, differences in communication styles, and contrasting business practices may hinder effective communication and coordination of business activities. This can lead to challenges in managing operations, negotiating contracts, and resolving conflicts. Larger cultural differences may require more significant adjustments and investments in market adaptation, which can affect the feasibility and attractiveness of FDI inflows. Moreover, cultural differences can affect human resource management practices, including recruitment, training, and motivation of employees. Finally, cultural distance can also influence the institutional environment in the host country. The institutional environment includes factors such as legal and regulatory frameworks, political stability, corruption levels, and the effectiveness of institutions. Greater cultural distance may indicate differences in institutional practices and norms, which can affect the ease of doing business and the perceived level of risk for foreign investors. If the institutional environment is perceived as challenging or uncertain due to cultural differences, it may deter FDI inflows.

Higher discrepancies in corruption rates between the home country and the host country correspond to diminished levels of FDI inflows. This finding coincides with the result of Liu et al., (2023). In the context of market-seeking FDI, the difference in corruption levels between the home country and the host country may have a more negative, significant impact on FDI inflows. In terms of efficiency-seeking FDI, the relationship between the difference in corruption levels and FDI inflows may be less pronounced compared to market-seeking FDI. Efficiency-seeking FDI refers to investments made by MNCs aiming to optimize their production processes, reduce costs, and enhance efficiency. A lower level of corruption in the host country compared to the home country enhances investor confidence and reduces perceived risk. Investors prefer to operate in countries with transparent, efficient, and fair business environments, as it reduces the likelihood of corrupt practices such as bribery, extortion, and nepotism. A host country with low corruption levels provides a more stable and predictable investment climate, attracting greater FDI inflows. The research of Dang & Nguyen (2021) also indicates that high levels of corruption in the host country may deter foreign investors due to concerns about bribery, embezzlement, and a lack of transparency. Corruption is closely linked to the quality of governance and institutional frameworks. A host country with weak governance structures and ineffective anti-corruption measures may struggle to attract FDI.

Finally, the variable FDI_in with lag 1 always has statistical significance and positive regression coefficients in all 3 models. This result shows that attracting FDI capital from a partner is entailed. This result is similar to the research results of Qi et al. (2020). The entailed impact of attracting FDI can be

explained based on the impact of foreign business networks. Foreign business networks help MNCs explore investment opportunities, assess risks and development prospects in a new country. The business network factor in the host country is an important factor attracting FDI from MNCs.

4. Conclusion

The study has confirmed that the differences in population size, culture, corruption index and GDP per capita between Vietnam and the FDI-investing country have an important impact on FDI inflow to Vietnam. Therefore, to continue to attract FDI capital effectively, Vietnam needs to focus on developing the quality and quantity of the workforce to meet the requirements of MNCs. Besides, strengthening institutional system, implementing robust anti-corruption measures, and promoting transparency law system are crucial for Vietnam to foster a favorable investment climate and attracting FDI sustainably.

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