The Economics and Finance Letters
2024 Vol. 11, No. 4, pp. 261-272
ISSN(e): 2312-430X
ISSN(p): 2312-6310
DOI: 10.18488/29.v11i4.3930

The impact of institutional environment factors on foreign direct investment in provinces located in the Mekong delta region

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Article History
Received: 15 November 2023
Revised: 5 September 2024
Accepted: 16 September 2024
Published: 10 October 2024

Keywords
Foreign direct investment
Institutional environment
Mekong delta.

JEL Classification:
E02, F20, F21.

ABSTRACT

The primary aim of this study is to explore the influence of institutional environmental factors on foreign direct investment (FDI) within the provinces of Vietnam's Mekong Delta region over the period from 2010 to 2022. The fixed-effect model (FEM) and random-effect model (REM) are used for estimating the impacts of the institutional environment's elements on the FDI of Vietnam's provinces. The Hausman's test is applied to help determine a suitable and reliable model to perform analyses and discuss the empirical results. The research results indicate that institutional environment factors have a significant impact on FDI inflows in the provinces. Specifically, enterprise support and the number of FDI projects foster the FDI inflows in the provinces of Mekong Delta region. Furthermore, factors such as cost of market entry, information transparency, informal costs, the dynamics of the leaders at the provincial level, the level of labor training, and legal institutions do not significantly influence the FDI inflows into the provinces. Based on these findings, the main policy implications, including improving enterprise support and increasing the number of FDI projects to attract more FDI inflows to the provinces in the Mekong Delta region of Vietnam, have also been proposed.

Contribution/Originality: To the best of the authors' knowledge, this study is the first to examine the impact of institutional environment on FDI in Mekong Delta provinces. The findings provide policy implications for promoting FDI and economic growth in the Mekong Delta region.

1. INTRODUCTION

The *Foreign Direct Investment* (FDI) is an important element of the global economy and the economic development of countries (Bulent, 2012). UNCTAD (2014) identified that the FDI inflows are likely to shift to countries with good investment policies and economic growth. Vietnam has a good opportunity to attract the FDI, but it faces an unequal distribution of FDI in the provinces (Nguyen, Chu, Tran, & Pham, 2014).

The Mekong Delta in Vietnam has a total area of about 41,000 km² and a population of over 17 million people, which is the key agricultural and fishery production area of Vietnam (Cao, 2019). Besides, the latest available PCI report was for 2023, which reported that the average PCI score of the Mekong Delta region was 65.12, slightly lower than the national average score of 65.53 (VCCI, 2022). In the first quarter of 2023, the Mekong Delta region

only received 19 new FDI projects, 22 projects with increased capital, and 16 cases of investors contributing capital to buy shares, with a total registered investment capital of over 250 million US dollars. It is noteworthy that up to 10 out of 13 localities in the Mekong Delta region did not attract any projects. As of the end of the first quarter of 2023, the Mekong Delta region has attracted a total of 1,694 FDI projects with nearly 35 billion US dollars of registered capital; however, the scale of investment is very small, only higher than the mountainous region in the north and the Central Highlands region (General Statistics Office of Vietnam, 2022).

The influences of the institutional environment on the FDI have attracted the attention of domestic and foreign scholars (Jovanović, Domazet, & Marjanović, 2023; Kang & Wang, 2011; Kothari, Singhal, & Hoang, 2023; La & Nguyen, 2018; Nguyen et al., 2014; Nguyen & Kieu, 2021; Truong, 2017). Most scholars believe that the local institutional factors have significant impacts on the FDI inflows. As a result, improving local institutional factors is an urgent issue in a country's policy implementation (Bulent, 2012; Kang & Wang, 2011). Most of the previous studies have focused on the impacts of the macroeconomic factors on the FDI inflows at the national or provincial level. According to La and Nguyen (2018) FDI investment in a country is subject to the conditions of the host country and the advantages of each locality, and thus it is not possible to distribute FDI equally among regions or countries in the same field.

To the best of the authors' knowledge, there has been limited study on the influences of institutional environmental factors on the FDI of provinces in the Mekong Delta. The research question of this paper is whether the institutional environmental factors affect FDI of provinces in the Mekong Delta or not. The findings of this paper suggest some policy implications related to the factors of institutional environment for promoting the FDI in Vietnam's provinces located in the Mekong Delta, which contributes to the economic growth of the Mekong Delta region.

This paper followed a standard structure. Namely, Section 2 provided the literature review. In Section 3, we focused on introducing the research models and methods. Section 4 reported the empirical findings. Finally, Section 5 summarized the main findings and policy implications.

2. LITERATURE REVIEW

2.1. Institutional Environment

The institutional environment is a set of fundamental political, social, legal, and economic rules that facilitates the production and trade of a country (Davis & North, 1971). North (1990) documented that the institutional environment determines the interaction of people in a society through the rules such as laws and regulations. According to North (1990) the institutional environment determines how people interact in a society through rules such as laws and regulations. They provide a framework for economic and social activities and influence the costs and benefits of various actions. According to North (1990) the institutional environment influences the incentives and constraints faced by individuals and organizations, which in turn shape their behavior and the outcomes of their interactions. The institutional environment can be classified into the formal (e.g., laws and regulations) and the informal (e.g., customs, codes of conduct, and culture) components, which strongly affect the business activities of a country (Chiles, Bluedorn, & Gupta, 2007).

2.2. The FDI

The FDI can be understood as the long-term direct investment into a firm located in a foreign country (IMF, 1993; OECD, 1996). In addition, the FDI investor has control and interest in that foreign firm (UNCTAD, 2007). The FDI consists of three elements: equity, reinvested income, and intra-company loans. Specifically, equity refers to the purchase of shares in a foreign company. The reinvested earnings include the portion of undivided earnings from affiliates or the income not transferred directly to the investor. The intra-company loans involve the borrowing or lending between the investor and the foreign company (Bulent, 2012; Kang & Wang, 2011).

2.3. The Impact of the Institutional Environment on the FDI

The impact of the institutional environment on the FDI is considered through two theoretical bases, including the endogenous growth theory and the Dunning and McQueen (1981). In the endogenous growth theory, the discrepancy in knowledge and human capital helps explain the heterogeneous growth among countries (Barro, 1991; Lucas, 1988). Moreover, the finest human resources also contribute to the increase of a country's competitiveness as they imply high technical expertise, good health, and high discipline (Kaldor, 1961). In addition, according to Kaldor (1961), technical progress determines the economic growth of countries. Modern machinery and equipment, advanced production technology, and advanced software can promote maximum efficiency when being used by the high-quality human resources. In the eclecticism theory (Dunning & McQueen, 1981), there are three core factors considered as the advantages of a country in attracting the FDI: balance of ownership, internalization, and location-specific advantages. Furthermore, the multinational corporations will increasingly benefit from producing in foreign countries and exporting the final goods back to their home countries (Helpman, 1984). The change of capital flow stems from multinational companies extending their operations beyond the borders of their home countries (Hymer, 1960). The process of international diversification of firms is very important because it helps exploit foreign and international market opportunities to increase competition and the expansion of a company's growth beyond its local boundaries (Mintzberg, 1987). Furthermore, transparency is an element of national political institutions, and the presence or absence of transparency will manifest the core value of the investment environment (Wei & Shleifer, 2000). In a study examining the distribution of FDI capital by the province and city levels in Vietnam between 1988-1998, Pham (2009) discovered that infrastructure, incentives, investment, and labor force positively influenced the FDI inflows. Besides, changing the behavior of individuals in terms of characteristics related to values, the beliefs of society, local culture, and the ability to control corruption affected the level of transparency (North, 1990). Additionally, the local governments need to address the possibility of FDI companies incurring additional operating costs due to policy and legal instability, in order to enhance their ability to attract FDI inflows (Demekas, Horváth, Ribakova, & Wu, 2007). Moreover, the introduction of a good legal system in maintaining institutions has a strong influence on the degree of FDI attraction into an economy (Acemoglu & Johnson, 2005).

Using broad-based indicators, the existing literature has examined the linkage between the institutional environment and FDI. For instance, Bhasin and Garg (2020) found that the rule of law, regulatory efficiency, and normative institutional environment significantly impact FDI. Moreover, Li and Huang (2023) investigated the relationship between institutional environment, FDI inflows, and net exports, revealing that they positively influence international entrepreneurship. Specifically, FDI inflows strengthened the relationship between institutional environment and international entrepreneurship, while net exports negatively moderated the impact of the regulatory dimension on entrepreneurial activity.

2.4. The Review of Previous Empirical Studies

The topic about the impact of the institutional environment on the FDI has drawn much attention from domestic and foreign scholars. Many studies in various contexts have examined different components of the institutional environment and reported its significant impacts on the FDI inflows. For instance, Kothari et al. (2023) found that political stability and a favorable regulatory environment are the most significant determinants of FDI inflows into India. Jovanović et al. (2023) conducted a study examining the influence of indicators of government quality in selected countries in Southeast Europe on the attractiveness of foreign direct investment. The empirical findings indicated that strong rule of law, efficient government and public administration, as well as political stability, are key drivers of the country's attractiveness for foreign investors. Conversely, factors such as the high cost of business startup tend to negatively impact the country's appeal to foreign direct investment. Esiyok and Ugur (2015) found that the factors related to the institutional environment, such as labor costs, labor quality,

infrastructure system, market size, the degree of business concentration, and the speed of local urbanization, significantly influenced the attraction of FDI in the host country. Alemu (2012) found the important role of the institutional environment (reflected through government efficiency, political stability, legal system, and corruption control) in promoting the FDI in Asian countries in the period 1996-2012. Furthermore, Masron and Abdullah (2010) found that the enhanced institutional environment, which was reflected via the level of economic development, the quality of human resources, and the political environment, had the potential to facilitate the FDI inflows into ASEAN countries. Besides, from the survey of 31 provinces in China, Liu (2008) indicated that each province had its own ability to attract the FDI, and the level of FDI inflows depended on the characteristics and the geographical location of each province.

The effects of the institutional environment on the FDI inflows to the provinces in Vietnam have also been examined. Le (2023) conducted a study on the factors affecting the attraction of FDI into Hanoi, Vietnam. The research results have identified three main factors, including service infrastructure, economic environment, and social environment. Similarly, Nguyen and Kieu (2021) identified five key factors impacting the attraction of FDI into Hanoi's agriculture: infrastructure services, natural conditions, economic environment, social environment, and institutional policies. Furthermore, a study by Hanh, Van Hùng, Hoat, and Trang (2017) analyzed Vietnam's FDI data from 1988 to 2016, identifying three primary drivers of FDI quality: resource availability, infrastructure, and supporting policies. Truong (2017) included several factors of the institutional environment (i.e., information transparency, informal costs, cost of joining, dynamic of local leaders, business support services, labor training, and legal institutions) and demonstrated that they had a strong impact on the FDI inflows in Vietnam's provinces. Le and Nguyen (2017) applied the Durbin spatial estimation model and found that the institutional environment, which is represented by the degree of business clustering, market size, and the quality of human resources, helped attract more FDI into Vietnam. In addition, Nguyen et al. (2014) investigated the effects of the institutional environment on the FDI inflows into Vietnam at the provincial level. Their findings showed that the factors related to the financial market, such as transparency, corruption control, and land access, had a strong and positive influence on the FDI. Besides, Nguyen and Nguyen (2011) found that the components of the institutional environment, including transport infrastructure, legal institutions, and investment support services, also affected the FDI into Vietnam's provinces over the period 2006–2009. Recently, La and Nguyen (2018) used the Generalized Method of Moments model (GMM) and the Provincial Competitiveness Index (PCI) data of 7 provinces in Vietnam, including Hanoi, Hai Phong, Da Nang, Dong Nai, Binh Duong, Ho Chi Minh City, and Can Tho, in the period 2005–2015. The results indicated that the institutional environment's elements, such as legal institutions and the dynamism of local leaders had a positive influence on the FDI inflows.

Table 1 is the summary of institutional environmental factors influencing FDI from previous studies.

Table 1. Synthesis of previous studies.

Authors (Year)	Research context	Influencing factors
Kothari et al. (2023)	FDI inflows into India	Political stability, favorable regulatory environment
Jovanović et al. (2023)	FDI inflows into some selected countries in Southeast Europe	Rule of law, government efficiency, public administration efficiency and political stability
Bhasin and Garg (2020)	FDI inflows in emerging economies, 1990–2015	Rule of law, regulatory efficiency, and normative institutional environment
Esiyok and Ugur (2015)	FDI in 62 Vietnamese provinces	Labor costs, labor quality, infrastructure system, market size, the degree of business concentration, and the speed of local urbanization
Alemu (2012)	Asian countries in the period 1996-2012	Government efficiency, political stability, legal system, and corruption

Authors (Year)	Research context	Influencing factors
		control
Masron and Abdullah (2010)	FDI inflows into ASEAN countries	The level of economic development, the quality of human resources, and the political environment
Truong (2017)	FDI inflows in Vietnam's provinces	Information transparency, informal costs, cost of joining, dynamic of local leaders, business support services, labor training, and legal institutions
Le and Nguyen (2017)	FDI into Vietnam	The degree of business clustering, market size, and the quality of human resources
Nguyen et al. (2014)	FDI inflows into Vietnam at the provincial level	Transparency, corruption control, and land access
Nguyen and Nguyen (2011)	FDI into Vietnam's provinces over the period 2006–2009	Transport infrastructure, legal institutions, and investment support services
La and Nguyen (2018)	FDI data of 7 provinces in Vietnam including Hanoi, Hai Phong, Da Nang, Dong Nai, Binh Duong, Ho Chi Minh City, and Can Tho in the period 2005–2015	Legal institutions, transport infrastructure, and the dynamism of local leaders
Le (2023)	FDI into Hanoi, Vietnam	Service infrastructure, economic environment, and social environment
Nguyen and Kieu (2021)	FDI capital into agriculture in Hanoi	Infrastructure services; natural condition; economic environment; the social environment; institutions and policies
Hanh et al. (2017)	The quality of FDI attraction in Vietnam	Resources, infrastructure, other supporting policies

3. RESEARCH MODEL AND METHODOLOGY

3.1. Research Model

Based on literature review and previous studies by Nguyen et al. (2014), Truong (2017) and La and Nguyen (2018) the following research model is used:

$$FDI = \beta_0 + \beta_1.entry + \beta_2.trans + \beta_3.informal_{cost} + \beta_4.leader + \beta_5.support + \beta_6.training + \beta_7.legal + \beta_8.regis_{number} + \beta_9.shipping + \beta_{10}.labor + \beta_{11}.seaport \quad (1)$$

The variables in Equation 1 are described in Table 2.

Table 2. Description of variables.

Variable name	Description	Expected sign	Data source	Previous studies
FDI	The amount of FDI inflows		GSO	La and Nguyen (2018)
Entry	Cost of market entry	-	VCCI	Nguyen and Nguyen (2011) and Nguyen et al. (2014)
Trans	The level of information transparency	+	VCCI	La and Nguyen (2018); Kothari et al. (2023) and Jovanović et al. (2023)
Informal_cost	The informal costs FDI enterprises	-	VCCI	La and Nguyen (2018)
Leader	The dynamics of the local leaders	+	VCCI	La and Nguyen (2018)
Support	The number of support services	+	VCCI	Truong (2017); Nguyen and Nguyen (2011); Nguyen et al. (2014) and Hanh et al. (2017)

Training	The level of interest in training and improving the quality of local labors	+	VCCI	Truong (2017)
Legal	Legal institutions	+	VCCI	La and Nguyen (2018); Nguyen and Kieu (2021); Kothari et al. (2023) and Jovanović et al. (2023)
Regis_number	The number of FDI projects registered annually	+	VCCI	La and Nguyen (2018)
Shipping	The value of goods circulated	+	GSO	La and Nguyen (2018)
Labor	The number of trained workers (Aged 15 and older)	+	GSO	Nguyen and Nguyen (2011) and Nguyen et al. (2014)
Seaport	Dummy variable, indicating a province with or without seaport	+	Decision No.652/QD-BGTVT (Signed by the ministry of transport on April 3, 2018)	Nguyen and Nguyen (2011); Nguyen et al. (2014) and La and Nguyen (2018)

3.2. Research Methodology

We conducted a unit-root test using the Levin, Lin, and Chu (2002) method to determine the stationarity of the data, which is a prerequisite for the analysis. Subsequently, we employed both the fixed-effect model (FEM) and the random-effect model (REM) to analyze the panel data. The Hausman test was then utilized to select the more appropriate regression model between the FEM and REM. Table 3 presents the descriptive statistics of the variables used in the model, which include a total of 169 observations for each variable from the period of 2010-2022.

Table 3. Descriptive statistics.

Variables	Observations	Mean	Std. deviation	Min.	Max.
FDI	169	3.273	2.1681	-1.6094	7.8347
Entry	169	8.129	0.789	6.070	9.540
Trans	169	6.002	0.498	4.560	7.250
Informal_cost	169	6.753	0.907	4.650	8.940
Leader	169	5.741	1.076	1.930	8.140
Support	169	5.137	1.211	1.750	7.100
Training	169	5.181	0.626	3.850	6.860
Legal	169	5.921	1.060	2.870	7.910
Regis_number	169	9.949	22.964	0.000	126.000
Shipping	169	8.758	0.818	6.595	10.334
Labor	169	11.241	0.422	10.135	12.045
Seaport	169	0.641	0.482	0.000	1.000

4. RESEARCH RESULTS

First, we will perform a unit-root test on the variables using the Levin et al. (2002) method. The results of the stationarity tests are presented in the Table 4.

Table 4. Unit root test results using the Levin, Lin & Chu test (LLC).

Variables	t-statistic	P-value
Entry	-12.33	0.0000
Trans	-10.54	0.0000
Informal_cost	-15.34	0.0000
Leader	-7.87	0.0000
Support	-6.76	0.0000
Training	-25.15	0.0000
Legal	-19.17	0.0000
Regis_number	-8.09	0.0000
Shipping	-7.87	0.0000
Seaport	-5.66	0.0000
Labor	-22.9	0.0000

The null hypothesis H_0 states that the data is non-stationary. With the P-value = 0.0000 (Table 4) for all variables, the study rejects the null hypothesis H_0 at the 1% significance level, meaning the data is stationary. The sample data is suitable for analysis.

Next, the authors proceed to regress the model using FEM and REM. Table 5 presents the regression results using FEM and REM.

Table 5. Regression results with FEM and REM.

Variables	FEM	REM
Entry	0.378	0.467
Trans	0.255	0.827*
Informal_cost	-0.213	-0.265
Leader	-0.473	-0.274
Support	0.711*	0.278
Training	0.061	1.214***
Legal	0.302	0.294
Regis_number	0.048**	0.031***
Shipping	-2.449	-0.959***
Seaport	1.473	0.886
Labor	-1.391	-1.819**
Constant	-2.947	-13.774
R2	0.543	0.424
Prob>F	0.000	0.000

Notes: *, **, and *** represent statistical significance at the 10%, 5% and levels.

Selecting the appropriate model will help the regression and analysis process be more accurate and effective. In this study, to choose the better model between FEM and REM, the authors employ the Hausman test. This test has the null hypothesis that the REM model is more appropriate than the FEM model. The results of the Hausman test show that the p-value is less than 0.05; therefore, it can be concluded that the FEM model is more suitable and effective.

The results of the FEM model in Table 5 show that enterprise support and the number of FDI projects positively impact the FDI inflows of Vietnam's provinces located in the Mekong Delta.

According to Nguyen (2015) enterprise support (*support*) fosters the FDI inflows. Vietnam is considered an attractive destination for the FDI because it has kept and improved the stable business environment combined with open policies (Nguyen, 2015). This result is similar to the study of Nguyen (2015) but not similar to the results in the study by Truong (2017) where this variable had a negative impact on attracting FDI. This study's findings are also consistent with those of Hanh et al. (2017). This study also found that the supporting policies have a positive

impact on the local attraction of FDI. Support policies for businesses in localities have a significant meaning, providing motivation and conditions for businesses in the area to leverage their strengths, thereby promoting production, increasing revenue, and contributing to promoting local economic growth. In recent times, the Vietnamese government and related ministries have issued many new or amended regulations to overcome difficulties, support effective business operations, improve the investment environment, increase Vietnam's competitiveness index, and thereby attract foreign investors. However, in reality, the application of regulations and policies in localities still faces some difficulties and shortcomings, and does not truly create favorable conditions and equality for domestic and foreign investors, notably issues related to tax obligations and transfer pricing management.

The number of FDI projects *(regis_number)* is also a stimulus for the FDI inflows at the provincial level. This finding is consistent with La and Nguyen (2018). FDI enterprises in the provinces located in the Mekong Delta create a strong spillover effect on the FDI flows in the localities of the region, which enhances the level of competition with domestic companies. The FDI enterprises also encourage the domestic companies to improve their management capacity and learn to absorb new technologies (La & Nguyen, 2018). The presence of FDI enterprises has a positive chain effect on attracting FDI to the Mekong Delta region. This increases competition in the market, helps local business managers learn about production arrangements, management, and technology absorption, and fosters better linkages between local businesses and FDI businesses. Foreign investors will be more confident in investing in areas where the Mekong Delta has advantages, such as in the production of goods, agricultural exports, and tourism services.

Furthermore, factors such as cost of market entry, information transparency, informal costs, the dynamics of the leaders at the provincial level, the level of labor training, and legal institutions manifest no significant impact on the FDI inflows of the provinces.

Cost of market entry *(entry)* has a positive coefficient, but the impact on FDI inflows is not significant. This could be due to the high amount of investment and the long time needed for market entry as the FDI firms set new operations and build distribution networks. In the research of Nguyen (2015) the variable of market entry costs also had a positive impact on attracting FDI, but it was not statistically significant. In the studies of Truong (2017) and Nguyen et al. (2014) it had a negative impact on attracting FDI. This finding shows that increasing market entry costs does not necessarily promote FDI attraction in the Mekong Delta region. In fact, market information in the provinces of the Mekong Delta region is still lacking, and businesses must find market information and go through complex administrative procedures to enter the market and obtain business licenses. Therefore, businesses must incur additional costs and time to enter the market, which also serves as a barrier to attracting foreign investment.

Informal costs *(informal_cost)* demonstrate an insignificant positive impact on the FDI inflows at the provincial level. In the study of Truong (2017) and Nguyen et al. (2014) this variable had a negative impact on attracting FDI. When the FDI enterprises spend too much on lubricating costs, the burden for doing business increases, which may reduce the level of FDI attraction (Nguyen et al., 2014). This demonstrates that lubrication costs or unofficial fees have a positive impact on attracting FDI. However, this index is like a double-edged sword, as businesses that have to pay too much for unclear fees will lose their trust in the management agencies, increase the cost burden for businesses, and adversely affect FDI attraction.

The dynamics of the leaders has an insignificant negative impact on the FDI inflows. On one hand, the dynamics of the leaders create openness and business support. On the other hand, it can lead to inconsistent government policies and local promulgation documents, hinder FDI enterprises, and reduce the attractiveness of FDI inflows (Nguyen et al., 2014). This result is not consistent with the results in the study by Truong (2017) and Nguyen et al. (2014). According to VCCI's evaluation, increasing the dynamic and creative capacity of local leaders in solving issues can hinder the growth of the locality. The policies of the government and the documents issued by local authorities are sometimes inconsistent, leading to difficulties for businesses. When authorities handle cases,

they exploit the lack of strictness and clarity in the regulations, causing difficulties for new businesses and those that have the potential to compete with those in the locality.

The level of labor training *(labor)* has a positive coefficient, but it is not significant. This implies that Vietnam's provinces in the Mekong Delta may have low-skilled labor forces, most of which are unskilled workers (Truong, 2017). In the study by Truong (2017) labor training had a negative impact on the FDI inflow. This shows that in the Mekong Delta region, the majority of the workforce has a low level of education, mainly consisting of unskilled laborers. Immediate training policies have not yet been effective, so the training process needs time for workers to grasp the skills and knowledge required, especially in training high-quality human resources with advanced skills in the trend of the fourth industrial revolution.

Legal institutions have a positive but insignificant impact on the FDI inflows. The improvement of legal institutions will contribute to attracting FDI inflows from Vietnam's provinces in the Mekong Delta. In the study by Truong (2017) and Nguyen et al. (2014) the legal framework had a positive impact on the FDI inflow. This shows that strengthening the legal framework, specifically the ability to resolve disputes and enforce laws, will promote FDI attraction in the locality. The state management agency must approve capital restructuring, legal capital requirements, and changes in the equity ratio of joint venture parties. Investors can choose one of the investment forms, but the state management agency must approve the conversion. However, new FDI businesses are only allowed to organize as limited liability companies, and are not allowed to establish joint-stock companies or issue shares or bonds to mobilize capital in Vietnam like most countries in the region and around the world. Additionally, restructuring, such as splitting, merging, consolidation, transforming investment forms must be accepted by the state management agency, which limits FDI attraction in the Mekong Delta region.

5. CONCLUSION AND POLICY IMPLICATIONS

The main objective of this paper is to analyze the impacts of the institutional environment on the FDI inflows of Vietnam's provinces located in the Mekong Delta in the period 2010-2022. The estimation results from the FEM model show that enterprise support and the number of FDI projects facilitate the FDI inflows. These results suggest several implications for increasing the FDI inflows in the provinces.

First, it is necessary to enhance support for FDI enterprises. The provincial competitiveness index (PCI) component scores such as transparency, legal framework, market entry, business support services, and vocational training in some provinces, such as An Giang, Tien Giang, Can Tho, Ca Mau, Bac Lieu, and Hau Giang, are lower than the regional average. Therefore, provinces need to be proactive to improve the investment environment: be dynamic and flexible in resolving and handling issues that are appropriate to the current economic situation, especially by strengthening the transparency of legal documents and timely addressing issues arising from FDI enterprises. Furthermore, provinces must adopt a consistent approach, ranging from departments to district and city-level People's Committees that are truly supportive, friendly, and open when engaging with FDI enterprises, to improve the competitiveness component scores of provinces. Provinces in the region (Long An, Tra Vinh, Kien Giang, Tien Giang, Ben Tre, An Giang, Can Tho, Ca Mau, Bac Lieu, and Hau Giang) need to maintain and strengthen the creation of a more convenient, open, and flexible legal environment. They also need to improve training and human resource quality to meet the demands of applying high technology in the economy, especially in breakthrough areas such as renewable energy, tourism, and high-tech agriculture. These are also factors that contribute to improving the competitiveness component scores of provinces in the Mekong Delta region to improve their competitiveness.

Second, the provinces in the Mekong Delta region should improve the quality of investment promotion activities. Particularly, they should create the favorable conditions for the FDI enterprises to innovate and enhance the efficiency of investment. The provinces can learn from the strong investment promotion activities conducted by Ho Chi Minh City, Binh Duong, and Da Nang, which are the well-known destinations for the FDI inflows in

Vietnam. Besides, the government officers need to be more supportive for businesses, which can contribute to improving the image of the provinces and the confidence of FDI enterprises. In addition, the legal environment should become more open and supportive for the FDI enterprises. Moreover, the leaders of provinces in the Mekong Delta need to show more decisiveness in corruption control activities, thereby improving the investment environment and enhancing the ability to control corruption. And the provinces located in the Mekong Delta region can improve the quality of human resources by training workers, especially in the fields that the provinces have the advantages to develop.

Third, it is necessary to promote investment in the transportation infrastructure and logistics system of the Mekong Delta region. The Mekong Delta region is one of the areas that generates high added value in the country but has received less investment. The Mekong Delta region still lacks infrastructure and transportation, does not have a deep-water port or railway, and the waterway system is not yet developed in a coordinated manner. Therefore, the government needs to increase investment and upgrade the intra-provincial transportation system to industrial zones, clusters, agricultural production areas, and specialized livestock farming areas. In particular, the transportation infrastructure that links the region needs to be invested in early to create momentum and attract investment.

Finally, the provinces in the Mekong Delta region should call for the investment in prioritizing sectors (e.g., high-tech agriculture, infrastructure development, and clean energy) to increase regional connectivity and promote the spread of FDI capital to other provinces in the Mekong Delta region.

6. LIMITATIONS OF THE STUDY AND FUTURE RESEARCH SUGGESTIONS

According to the regression analysis results, there are some variables that are contrary to the initial expected signs; therefore, further studies can use longer time series and expand the number of provinces to increase the generalizability and robustness of the research.

In addition to the factors included in the model, the authors propose to continue to supplement and expand other factors affecting the attraction of FDI capital, such as macroeconomic factors, policies related to investment attraction, and assessments of the satisfaction of FDI enterprises when investing in the locality.

Funding: This research is supported by Ho Chi Minh City University of Law.
Institutional Review Board Statement: Not applicable.
Transparency: The authors state that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.
Data Availability Statement: The corresponding author can provide the supporting data of this study upon a reasonable request.
Competing Interests: The authors declare that they have no competing interests.
Authors' Contributions: Methodology, data curation, collected the data and demonstrated the use and benefits of the methodology, statistical software, writing – original draft, B.H.N.; conceived and designed the study, writing – original draft. H.P.L.; supervision, writing – review & editing, reviewed and edited the manuscript, T.A.V. All authors have read and agreed to the published version of the manuscript.

REFERENCES

Acemoglu, D., & Johnson, S. (2005). Unbundling institutions. *Journal of Political Economy, 113*(5), 949-995.

Alemu, A. M. (2012). Effects of corruption on FDI inflow in Asian economies. *Seoul Journal of Economics, 25*(4), 387-412.

Barro, R. J. (1991). Economic growth in a cross section of countries. *The Quarterly Journal of Economics, 106*(2), 407-443.

Bhasin, N., & Garg, S. (2020). Impact of institutional environment on inward FDI: A case of select emerging market economies. *Global Business Review, 21*(5), 1279-1301. https://doi.org/10.1177/0972150919856989

Bulent, D. (2012). *The effect of institutional variables on fdi inflows: Evidence from upper middle income countries. MPRA Paper 37531*. Germany: University Library of Munich.

Cao, T. H. (2019). *Factors affecting foreign direct investment attraction: A study of the Southeast economic region doctoral dissertation*. Viet Nam: Ho Chi Minh National Academy of Politics.

Chiles, T. H., Bluedorn, A. C., & Gupta, V. K. (2007). Beyond creative destruction and entrepreneurial discovery: A radical Austrian approach to entrepreneurship. *Organization Studies, 28*(4), 467-493. https://doi.org/10.1177/0170840606067996

Davis, L., & North, D. (1971). *Institutional change and American economic growth*. London: Cambridge University Press.

Demekas, D. G., Horváth, B., Ribakova, E., & Wu, Y. (2007). Foreign direct investment in European transition economies—The role of policies. *Journal of Comparative Economics, 35*(2), 369-386. https://doi.org/10.1016/j.jce.2007.03.005

Dunning, J. H., & McQueen, M. (1981). The eclectic theory of international production: A case study of the international hotel industry. *Managerial and Decision Economics, 2*(4), 197-210. https://doi.org/10.1002/mde.4090020401

Esiyok, B., & Ugur, M. (2015). A spatial regression approach to FDI in Vietnam. *The Singapore Economic Review, 62*(2), 459-481.

General Statistics Office of Vietnam. (2022). *Population in the mekong delta*. Retrieved from https://www.gso.gov.vn/default.aspx?tabid=714

Hanh, N. P., Van Hùng, Đ., Hoat, N. T., & Trang, D. T. T. (2017). Improving quality of foreign direct investment attraction in Vietnam. *International Journal of Quality Innovation, 3*(1), 7. https://doi.org/10.1186/s40887-017-0016-7

Helpman, E. (1984). A simple theory of international trade with multinational corporations. *Journal of Political Economy, 92*(3), 451-471. https://doi.org/10.1086/261236

Hymer, S. (1960). *The international operations of national firms: A study of direct foreign investment*. Cambridge: The MIT Press.

IMF. (1993). *International monetary fund* (5th ed.). Washington, D.C: Balance of Payments Manual.

Jovanović, M., Domazet, I., & Marjanović, D. (2023). Quality of government as an attracting factor of FDI-evidence from chosen Southeastern European countries. *Economic Analysis*, 1-18. https://doi.org/10.28934/ea.23.56.2.pp1-18

Kaldor, N. (1961). *Capital accumulation and economic growth. in: Hague, d.c. (eds) the theory of capital international economic association series*. London: Palgrave Macmillan.

Kang, H., & Wang, W. (2011). The effects of changes in China's business environment on taiwan's outward foreign direct investment. *2nd International Conference on Education and Management Technology IPEDR, 13*, 329-333.

Kothari, S., Singhal, C., & Hoang, D. C. (2023). Factors affecting foreign direct investment in india: A survey based study of economic experts. *Journal of Informatics Education and Research, 3*(2), 1-8. https://doi.org/10.52783/jier.v3i2.55

La, V. D., & Nguyen, T. Q. P. (2018). Impact of provincial competitiveness index on attracting FDI into the locality. *Journal of Financial - Marketing Research, 43*(2), 55-64.

Le, T. H. (2023). Factors affecting the attraction of foreign direct investment in Hanoi, Vietnam. *Business and Economic Research, 13*(4), 27-35.

Le, V. T., & Nguyen, L. B. D. (2017). Analysis of factors affecting FDI of Vietnamese provinces and cities by spatial econometric model. *Economic Development Review, 28*(7), 04-33.

Levin, A., Lin, C.-F., & Chu, C.-S. J. (2002). Unit root tests in panel data: Asymptotic and finite-sample properties. *Journal of Econometrics, 108*(1), 1-24. https://doi.org/10.1016/s0304-4076(01)00098-7

Li, Y., & Huang, X. (2023). Research on the impact of institutional environment, FDI and net export on international entrepreneurship. *Finance Research Letters, 53*(2), 103653. https://doi.org/10.1016/j.frl.2023.103653

Liu, Z. (2008). Foreign direct investment and technology spillovers: Theory and evidence. *Journal of Development Economics, 85*(2), 176-193. https://doi.org/10.1016/j.jdeveco.2006.07.001

Lucas, R. E. (1988). On the mechanics of economic development. *Journal of Monetary Economics, 22*(1), 3-42. https://doi.org/10.1016/0304-3932(88)90168-7

Masron, T. A., & Abdullah, H. (2010). Institutional quality as a determinant for FDI inflows: Evidence from ASEAN. *World Journal of Management, 2*(3), 115-128.

Mintzberg, H. (1987). The strategy concept 1:5 Ps for strategy. *California Management Review, 30*, 11-21. http://dx.doi.org/10.2307/41165263

Nguyen, K. P. (2015). The reason the Mekong Delta does not attract foreign direct investment. *Science Journal of Open University of Ho Chi Minh City*, *5*(44), 62-72.

Nguyen, Q. V., Chu, T. N., Tran, T. G. Q., & Pham, T. H. (2014). Assess the impact of provincial institutional quality on the ability to attract FDI to localities in Vietnam. *Science Journal of Vietnam National University, Economics and Business*, *1*(30), 53-62.

Nguyen, T. M. H., & Kieu, T. M. (2021). Factors affecting the attraction of foreign direct investment (FDI) into the agricultural sector in Hanoi. *Journal of Science and Technology - University of Danang*, *19*(10), 1-8.

Nguyen, V. P., & Nguyen, D. H. (2011). Factors affecting foreign investment attraction of provinces/cities in Vietnam: A cross-sectional data analysis. *Science Journal of Open University of Ho Chi Minh City*, *2*(20), 9 -19.

North, D. (1990). *Institutions, institutional change, and economic performance*. New York: Cambridge University Press.

OECD. (1996). *OECD benchmark definition of foreign direct investment* (3rd ed.). Paris: France. https://doi.org/10.1787/9789264064805-en.

Pham, H. (2009). Assessment of FDI spillover effects for the case of vietnam: A survey of micro-data analyses. *Deepening Eastasian Economic Integration*, *2009*(1), 473-495.

Truong, M. T. (2017). The impact of the institutional environment on FDI inflows in provinces and cities in Vietnam. *Journal of Industry and Trade*, *7*(2), 40-46.

UNCTAD. (2007). *World investment report 2007: Transnational corporations, extractive industries and development*. New York: Geneva.

UNCTAD. (2014). *World investment report 2014: Investing in the SDGs: An action plan*. Paper presented at the United Nations Conference on Trade and Development. New York and Geneva.

VCCI. (2022). *PCI data of provinces and cities in the Mekong Delta from 2010-2022*. Retrieved from https://pcivietnam.vn/du-lieu-pci

Wei, S.-J., & Shleifer, A. (2000). Local corruption and global capital flows. *Brookings Papers on Economic Activity*, *2000*(2), 303-354. https://doi.org/10.1353/eca.2000.0021