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### Attracting Foreign Direct Investment in Agriculture: A Study in Vietnam

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#### Abstract

Securing foreign direct investment (FDI), both in a broader context and specifically within the agricultural domain, has consistently captured the attention of the state and government. This interest is particularly pronounced as Vietnam navigates the path of sustainable integration and development. Hence, comprehending the variables influencing FDI attraction in the agricultural sector is crucial for informed policy formulation. To investigate these dynamics, the study employs the Structural Equation Model (SEM) to identify the determinants of FDI attraction in Vietnam's

agricultural sector. Findings derived from a sample of 176 FDI enterprises in the agricultural domain underscore the significance of factors such as infrastructure and services, institutions and policy, social environment, macroeconomic conditions, and natural circumstances in shaping FDI attraction. Notably, among these factors, infrastructure and institutions & policy exert the most substantial influence on FDI attraction, surpassing the impact of social environment, macroeconomics, and natural conditions.

**Keywords:** Foreign Direct Investment, Agricultural Sector, Infrastructure, Natural Conditions, Institutions & Policy, Social Environment, Macroeconomics

#### 1. Introduction

Foreign Direct Investment (FDI) stands out as a significant phenomenon in the era of globalization and regionalization (Dasun Yoo and Felix Reimann, 2017) <sup>[12]</sup>. It serves as a crucial instrument in propelling the economic development of numerous countries worldwide, particularly those in the process of industrialization (Miao Wang, 2009) <sup>[44]</sup>. The positive impact of FDI extends to both investing and receiving countries, with particular relevance to the latter during the industrialization phase. FDI not only injects capital, expands foreign markets, and fosters economic growth but also elevates domestic science and technology, generates employment, and enhances income for workers. Despite these advantages, historical trends reveal a lack of attention toward the agricultural sector from foreign direct investors. In industrializing recipient countries, the agricultural sector plays a pivotal role in supplying low-cost raw materials, sustenance, and food for other economic sectors, forming the bedrock of sustainable growth.

Numerous studies explore the factors influencing FDI attraction in the agricultural sector. Zingwena Taurai (2014) <sup>[41]</sup> identifies economic growth, inflation, government spending, and economic openness as positive influencers on FDI scale and agricultural growth in Zimbabwe. In contrast, Deepak Kumar Adhana (2016) <sup>[11]</sup> emphasizes the significance of market size, infrastructure, and labor quality as decisive factors for foreign investors in India's agricultural sector. Grazia D. Santangelo (2017) <sup>[20]</sup> underscores the impact of market size, labor force availability, labor costs, infrastructure, and technology on FDI scale in the agricultural sector across developing countries. Despite these studies, a systematic examination of the factors and their relative influence on FDI in Vietnam's agricultural sector is lacking. Existing research relies on ordinary least squares (OLS) regression, potentially yielding biased, unstable, and unreliable results with incomplete factor identification and limited assessment of their influence levels.

In Vietnam, the agricultural sector plays a pivotal role, contributing around 20% to the GDP and supporting over 60% of the rural population. While ensuring domestic food supply, it also serves as a substantial source of export goods and acts as an economic pillar during market fluctuations. Despite its crucial role, FDI in the agricultural sector in Vietnam has seen a diminishing share over the years. In 2001, FDI in agriculture accounted for 8% of total FDI, but by the end of 2019, it had dwindled to approximately 1.01% (Foreign Investment Agency, 2020) <sup>[2]</sup>. Given the imperative of accelerating industrialization, modernization, and deeper integration into the global economy, there is a pressing need for increased investment, with FDI emerging as a key capital source anticipated by the agricultural sector.

To enhance FDI inflows into Vietnam's agriculture sector and elevate its proportion in the overall FDI, understanding the constraints and devising solutions is paramount. While previous research in Vietnam has explored this issue, none have employed modern theoretical models to delve into the factors influencing FDI scale in agriculture. Building on established theories and practical studies, this research adopts the Structural Equation Model (SEM) to identify and test the factors affecting FDI scale in Vietnam's agricultural sector, with the ultimate goal of proposing solutions for its augmentation in the future.

## 2. Overview of Factors Affecting FDI Attraction in the Agricultural Sector

### 1. Natural Conditions

Natural conditions are one of the main factors in agricultural production including geographical location, land, natural resources, and climate.

Natural resources and land are the main factors constituting the source of raw materials for production activities of enterprises. Therefore, a country with abundant resources will help businesses in cutting raw material costs and improving business efficiency, so it will have a good impact in attracting FDI inflows (Nauro F. Campos and Yuko Kinoshita, 2003)<sup>[37]</sup>. In this case, the proxy variable used is the cost of raw materials, the availability of raw materials for agricultural production. (Sarbjit Chaudhuri and Dibyendu Banerjee, 2010)<sup>[39]</sup> studied the relationship between FDI in agriculture and employment, social welfare based on survey results, analyzing sub-Saharan countries and South America. According to the authors: Countries here that enjoy preferential treatment for natural resources or have large markets will attract a lot of foreign investment. Geographical location and favorable climate will affect the behavior and decisions of investors, reflected in the scale of capital that investors will spend to make investment. These factors play an important role, helping investors save costs of transporting raw materials and goods, facilitating access and expanding product consumption markets to other regions and the world (S.L. Brainard, 1997)<sup>[8]</sup>.

In addition, the favorable geographical location will stimulate the company to accumulate, helping them to effectively exploit the common input of the industry (P. Krugman, 1991)<sup>[30]</sup>. Therefore, the observations used to measure the advantage of this factor include: resources, easily accessible materials, cheap prices (Christine Husmann and Zaneta Kubik, 2019)<sup>[27]</sup> (A. W. Don, 2007)<sup>[13]</sup>, land, favorable geographical location (B Fawaz, 2009)<sup>[17]</sup>, scale of agricultural land area (Christine Husmann and Zaneta Kubik, 2019)<sup>[27]</sup>. However, some studies suggest that this factor will not affect the size of FDI if there is a lack of institutions, policies and other favorable conditions such as: infrastructure, supporting industries, other incentives (Nguyen Manh Toan, 2010).

### 2. Macroeconomic Environment

The macroeconomic environment is reflected in the macroeconomic stability, growth ability, and profitability of the economy. This is a country-specific element. Foreign investors are aware of the favorable macroeconomic environment factors that will affect their behavior and decision to choose investment locations. (Sarbjit Chaudhuri and Dibyendu Banerjee, 2010)<sup>[39]</sup> argue that one of the factors promoting FDI in agriculture is macroeconomic

stability, openness to agricultural FDI. The analysis results also show that FDI in agriculture clearly improves social welfare. A particularly important issue is that FDI in agriculture also reduces unemployment, ensures food security, and alleviates poverty in developing countries. Many other studies also show the important influence of the macroeconomic environment on attracting FDI, in which, economic growth, economic competitiveness, stable economic environment are said to be decisive factors. The observations used to measure the facilitation of these factors are: market size (Santangelo Grazia D, 2017)<sup>[20]</sup> (Licai Lv, Simei Wen *et al.*, 2010)<sup>[33]</sup>, (Chen Fei Fei, 2009)<sup>[18]</sup>, (Addo Addo Missama, 2010)<sup>[35]</sup>, (Sarbjit Chaudhuri and Dibyendu Banerjee, 2010)<sup>[39]</sup>, (Deepak Kumar Adhana, 2016)<sup>[1]</sup>, (Christine Husmann and Zaneta Kubik, 2019)<sup>[27]</sup>; high national economic growth (B Fawaz, 2009)<sup>[17]</sup> (U.Z. Khair, S. Hashim *et al.*, 2006)<sup>[29]</sup> (Zingwena Taurai, 2014)<sup>[41]</sup>, stable inflation (B Fawaz, 2009)<sup>[17]</sup> (U.Z. Khair, S. Hashim *et al.*, 2006)<sup>[29]</sup> (Addo Addo Missama, 2010)<sup>[35]</sup>, stable exchange rate (B Fawaz, 2009)<sup>[17]</sup> (U.Z. Khair, S. Hashim *et al.*, 2006)<sup>[29]</sup> (Addo Addo Missama, 2010)<sup>[35]</sup>, high rate of return on investment (E. Asiedu, 2002)<sup>[3]</sup> (T. Brahmasrene and K. Jiranyakul, 2001)<sup>[7]</sup> (B Fawaz, 2009)<sup>[17]</sup>.

### 3. Institutions & Policy

Institutional & policy factor are reflected in the regulations of the central government, ministries, and branches. In recent years, realizing the great role of FDI inflows to economic growth, many governments have changed their national policies towards this important capital flow, the main trend is to create favorable conditions for this capital to flow into the country. Most governments have issued preferential policies to attract more FDI along with adjusting the legal framework system, preventing corruption, creating a transparent investment environment, etc. Especially, after the 2007-2008 crisis, many governments focused on reforming administrative procedures to create conditions for foreign investors to cut costs and improve operational efficiency, especially by reducing informal payments. The adjustment of these factors will affect the investment decisions of foreign investors, because their convenience not only helps to reduce transaction costs, provide information, and facilitate transactions (R. Hoskisson, L. Eden *et al.*, 2000)<sup>[26]</sup> but also improve elements related to business processes. Many empirical studies prove that institutions and policies affect the company's international business strategy, such as deciding the location, form, size of investment and the possibility of success of the investment decision. (A. Bevan, S. Estrin *et al.*, 2004)<sup>[4]</sup> (K.E. Meyer and H.V. Nguyen, 2005)<sup>[34]</sup>.

(Roderick Campbell, Tristan Knowles *et al.*, 2012)<sup>[9]</sup> research on FDI in the agricultural sector with the aim of understanding the advantages and disadvantages of the form of FDI in the agricultural sector of Laos and its contribution to the economic development of Lao. The authors used the method of observing agricultural FDI data in Laos. The research showed two groups of factors affecting FDI in agriculture, including incentives for agricultural land and agricultural contracts.

(SAING Chan hang, HEM Socheth *et al.*, 2012)<sup>[22]</sup> studied FDI activities in the agricultural sector in Cambodia by surveying 59 enterprises operating in the agricultural sector through a questionnaire to assess the factors factors are considered as barriers to attracting FDI into agriculture. The

research results indicates five influential factors include: land use rights and maintenance of land lease contracts; lack of clear guidance in applying for an investment license; weak law enforcement; long-time consuming administrative procedures; limited dispute resolution mechanism for the matter of dispute.

Observations used to measure this favorable factor include: legal system related to investment in agriculture in general and agricultural FDI in particular, administrative procedures (A. Bevan, S. Estrin *et al.*, 2004) <sup>[4]</sup> (R. Mudambi and P. Navara, 2002) <sup>[36]</sup> (SAING Chan hang, HEM Socheth *et al.*, 2012) <sup>[22]</sup> (Dadson Awunyo Vitor and Ruby Adjoa Sackey, 2018) <sup>[43]</sup>, preferential policies on land rental and ground clearance (C. Zhou, A. Delios *et al.*, 2002) <sup>[45]</sup>, (Christine Husmann and Zaneta Kubik, 2019) <sup>[27]</sup>, export policy (Laura Carolia Pedraza Robles, 2012) <sup>[38]</sup> (Licai Lv, Simei Wen *et al.*, 2010) <sup>[33]</sup>, preferential policies for investment tax and land rent (A. W. Don, 2007) <sup>[13]</sup> (K.E. Meyer and H.V. Nguyen, 2005) <sup>[34]</sup> (Roderick Campbell, Tristan Knowles *et al.*, 2012) <sup>[9]</sup>, agricultural contract (Roderick Campbell, Tristan Knowles *et al.*, 2012) <sup>[9]</sup>, (SAING Chan hang, HEM Socheth *et al.*, 2012) <sup>[22]</sup>.

#### 4. Infrastructure and Services

The advantage of infrastructure and service factors affecting FDI attraction is mainly at the level of development of technical and economic infrastructure, (A. Hasnah, A. Sanep *et al.*, 2010) <sup>[23]</sup> including: Information, communication, traffic infrastructure, industrial park infrastructure, economic zones, electricity and water service supply system, banking system, audit.

(Chen Fei Fei, 2009) <sup>[18]</sup> analyzed based on primary data obtained from the feedback of FDI companies in the agricultural sector in Guangdong province, China - the locality with the largest amount of FDI in the agricultural sector in China. In addition to the large market size that affects the size of FDI into agriculture in Guangdong, factor of infrastructure and service also affects the attraction of FDI into this province.

(Licai Lv, Simei Wen *et al.*, 2010) <sup>[33]</sup> has empirically analyzed the factors affecting FDI inflows into China's agriculture using a multivariate regression model to evaluate the influence of factors determining the size of FDI in agriculture in 5 provinces in China which are: Shandong, Fujian, Guangdong, Jiangsu and Zhejiang in the period 1985-2006. The authors have identified China with one of the largest markets in the world, good infrastructure, and preferential policies that have had a positive impact on attracting FDI into agriculture.

Foreign investors are aware of the advantages of infrastructure and services that will decide to invest. Infrastructure and services are utilities for production and business activities, so the level of development of infrastructure and services affects the performance of foreign investors. The observations used to measure this factor favorability are: information infrastructure, communication development, Developed transport infrastructure (M.A. Boermans, H. Toelfsma *et al.*, 2011) <sup>[6]</sup> (K. Liu, D. Kevin *et al.*, 2012) <sup>[32]</sup>, (Santangelo Grazia D, 2017) <sup>[20]</sup>, Good water and electricity supply system (Chen Fei Fei, 2009) <sup>[18]</sup>, (Licai Lv, Simei Wen *et al.*, 2010) <sup>[33]</sup>; developed banking and auditing system (A. Hasnah, A. Sanep *et al.*, 2010) <sup>[23]</sup>.

#### 5. The Social Environment

The advantages of social environmental factors are reflected in the level of education, attitudes and beliefs, and social moral values, religion, customs, habits, language, and communication; number of employees, skill level of workers; employee discipline. If foreign investors are aware of the advantages of this factor, they will decide to invest because it provides quality labor and facilitates business activities. Research by UNDP also shows that investment trends in Southeast Asia have changed positively thanks to the discipline of the workforce along with political and economic stability in many countries in this region. The observations used to measure this factor favorability are: cheap labor cost (M.A. Boermans, H. Toelfsma *et al.*, 2011) <sup>[6]</sup> (N.P. Lan, 2006) <sup>[31]</sup> (Chen Fei Fei, 2009) <sup>[18]</sup>, availability of unskilled labor (Sarbjait Chaudhuri and Dibyendu Banerjee, 2010) <sup>[39]</sup>, education level of the people (A. W. Don, 2007) <sup>[13]</sup> (Santangelo Grazia D, 2017) <sup>[20]</sup>, people's ability to absorb and apply (Chen Fei Fei, 2009) <sup>[18]</sup>, (Deepak Kumar Adhana, 2016) <sup>[1]</sup>.

**Table 1:** Summary of previous studies

S. No	Factors	Authors
1	Natural condition	Sarbjait Chaudhuri, Dibyendu Banerjee (2010) <sup>[39]</sup> ; S.L Brainard (1997) <sup>[8]</sup> . P. Krugman (1991) <sup>[30]</sup> . Christine Husmann and Zaneta Kubik (2019) <sup>[27]</sup> , A. W. Don (2007) <sup>[13]</sup> , B Fawaz (2009) <sup>[17]</sup> ,
2	Macroeconomic environment	Santangelo Grazia D (2017) <sup>[20]</sup> ; Licai Lv, Simei Wen <i>et al.</i> (2010) <sup>[33]</sup> ; Chen Fei Fei (2009) <sup>[18]</sup> ; Addo Addo Missama (2010) <sup>[35]</sup> ; Sarbjait Chaudhuri and Dibyendu Banerjee (2010) <sup>[39]</sup> , Deepak Kumar Adhana (2016) <sup>[1]</sup> ; Christine Husmann and Zaneta Kubik (2019) <sup>[27]</sup> ; B Fawaz (2009) <sup>[17]</sup> ; U.Z. Khair, S. Hashim <i>et al.</i> (2006) <sup>[29]</sup> ; Zingwena Taurai (2014) <sup>[41]</sup> ; E. Asiedu (2002) <sup>[3]</sup> T Brahmasrene and K Jiranyakul (2001) <sup>[7]</sup>
3	Institutions and policies	A. Bevan, S. Estrin <i>et al.</i> (2004) <sup>[4]</sup> ; R. Mudambi and P. Navara (2002) <sup>[36]</sup> ; SAING Chan hang, HEM Socheth <i>et al.</i> (2012) <sup>[22]</sup> ; Dadson Awunyo Vitor and Ruby Adjoa Sackey (2018) <sup>[43]</sup> ; C. Zhou, A. Delios <i>et al.</i> (2002) <sup>[45]</sup> ; Christine Husmann and Zaneta Kubik (2019) <sup>[27]</sup> ; Laura Carolia Pedraza Robles (2012) <sup>[38]</sup> Licai Lv, Simei Wen <i>et al.</i> (2010) <sup>[33]</sup> ; A. W. Don (2007) <sup>[13]</sup> ; K.E. Meyer and H.V. Nguyen (2005) <sup>[34]</sup> ; Roderick Campbell, Tristan Knowles <i>et al.</i> (2012) <sup>[9]</sup>
4	Infrastructure and services	M.A. Boermans, H. Toelfsma <i>et al.</i> (2011) <sup>[6]</sup> ; K. Liu, D. Kevin <i>et al.</i> (2012) <sup>[32]</sup> ; Santangelo Grazia D (2017) <sup>[20]</sup> ; Chen Fei Fei (2009) <sup>[18]</sup> ; Licai Lv, Simei Wen <i>et al.</i> (2010) <sup>[33]</sup> ; A. Hasnah, A. Sanep <i>et al.</i> (2010) <sup>[23]</sup>
5	The social environment	M.A. Boermans, H. Toelfsma <i>et al.</i> (2011) <sup>[6]</sup> ; N.P. Lan (2006) <sup>[31]</sup> Chen Fei Fei (2009) <sup>[18]</sup> ; Sarbjait Chaudhuri and Dibyendu Banerjee (2010) <sup>[39]</sup> ; A. W. Don (2007) <sup>[13]</sup> ; Santangelo Grazia D (2017) <sup>[20]</sup> ; Deepak Kumar Adhana (2016) <sup>[1]</sup>

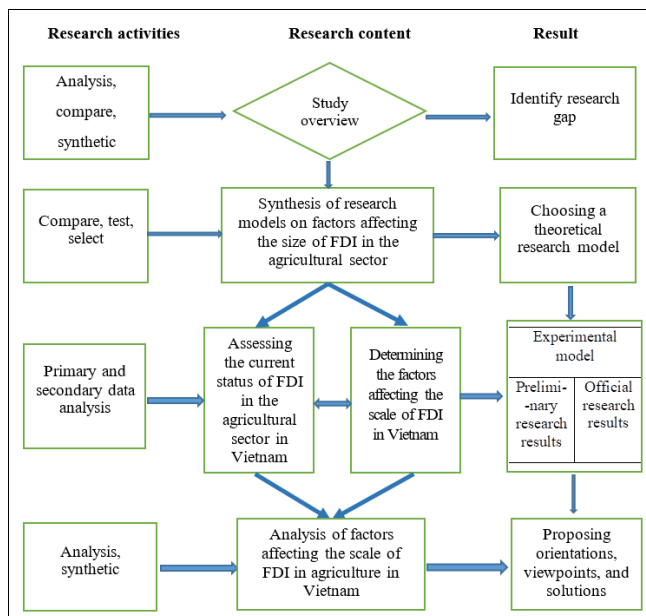
Source: Author's summary

### 3. Data Collection and Research Methods

#### 3.1 Data Collection

Secondary information is collected from documents, reports, studies of the Government, Ministry of Planning and Investment, Ministry of Agriculture and Rural

Development, General Statistics Office, Foreign Investment Department, research published in domestic and foreign economic journals, electronic bulletins of state management agencies and research organizations at home and abroad... The primary data is done through survey questionnaires. The research chooses the approach from the factors affecting the investment attraction of foreign investors. The research chooses the approach from the factors affecting the investment attraction of foreign investors, therefore, the survey subjects are 100% foreign-invested enterprises, joint venture enterprises, branches of joint stock companies, in which investors hold more than 49% of active shares. To serve the research, the author conducted a survey with 176 FDI enterprises operating in the agricultural sector in Vietnam. The research process is shown in the following diagram:



Source: Self-imposed from author

Fig 1: Research process

**3.2 Research Methods**

After data collection, it will be processed using SPSS software. After being encrypted and cleaned, the data is analyzed through the following steps:

+ Descriptive statistical analysis: for the purpose of assessing the concentration and dispersion of the scales and observed variables in each scale of the research model, through the mean value, standard deviation to help us get an overview of the information and analysis also helps us identify the first step on the status of influencing factors through the perception and assessment of foreign investors.

+ Formal evaluation of the model scale by Cronbach Alpha reliability analysis, EFA analysis, CFA analysis.

+ Examine the fittable level of the model by SEM analysis. The purpose is to assess the fit of the model with the research data and determine the level of impact of each factor on the dependent variable. The assessment of the fittable level of the model with the research data is based on the Chi - squared criteria adjusted for degrees of freedom. (CMIN/df ≤ 2; CFI, TLI ≥ 0,9; RMSEA ≤ 0.08 (J. F. Hair, W. C. Black *et al.*, 2010) [21].

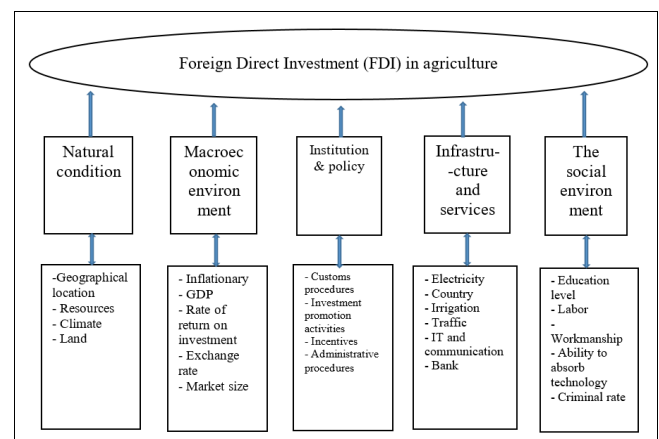
**3.3 Research Model and Hypothesis**

In this study, based on OLI theory and to suit the research object, scope and context, the author has some adjustments based on the following points of view:

*Firstly*, the model is designed based on OLI theory with the assumption that firms perceive ownership advantage, internalization advantage, and location advantage. The purpose of the model is to study the influencing factors and the influence level of those factors on the scale of FDI in the agricultural sector in Vietnam (the FDI recipient country). So, the model is designed mainly based on location advantage, considered from the perspective of the recipient country and influencing factors are sorted and classified based on national resources and the interoperability of national governments (policy factors...).

*Second*, the model is designed to analyze factors affecting the size of FDI in the economic sector in a country. Therefore, in the research thesis, the factors are both associated with the characteristics of the economic field (agricultural sector) and with national advantages.

*Third*, the observations used to measure the factors in the model are inherited and updated from the results of recent theoretical and experimental studies. Experts say that the importance of factors affecting investment decisions has changed in the process of globalization because the FDI motives have changed. Traditional factors (resources...) have decreased in importance, while the quality of infrastructure and services, economic environment, policy - institutions, social environment, resources... are more and more important. Therefore, the factors and the observations that measure them in the model are designed based on inheritance, selection of traditional factors and updating of factors from theoretical studies and experimental research results with high reliability.



Source: Self-imposed from author

Fig 2: Research model

**The Hypothesis:**

H1: Favorability of natural conditions has a positive influence on the decision to invest FDI in the agricultural sector of foreign investors and vice versa, has no effect.

H2: Favorability of socio-economic environment has a positive influence on the decision to invest FDI in the agricultural sector of foreign investors and vice versa, has no effect.



H3: Favorability of institution & policy has a positive influence on the decision to invest FDI in the agricultural sector of foreign investors and vice versa, has no effect.

H4: Favorability of infrastructure and services has a positive influence on the decision to invest FDI in the agricultural sector of foreign investors and vice versa, has no effect.

H5: Favorability of social environment has a positive influence on the decision to invest FDI in the agricultural sector of foreign investors and vice versa, has no effect.

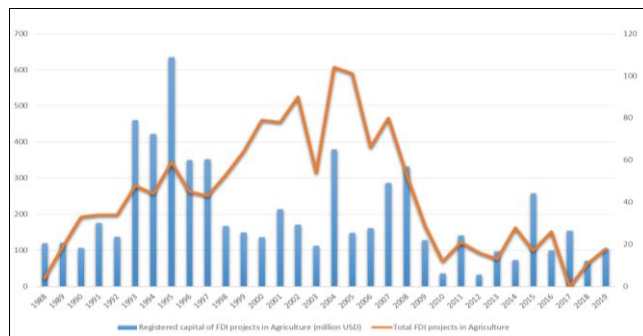
**4. Research Results**

**4.1 Current Status of FDI in the Agricultural Sector in Vietnam**

**Scale and growth of FDI in agriculture sector**

Since the Foreign Direct Investment Law of Vietnam took effect in 1988, Vietnam has made many achievements in attracting foreign direct investment flows, including foreign direct investment in the agricultural sector.

The total number of valid accumulated projects in the agricultural sector until 31/12/ 2019 is 498, with a total registered capital of over 3.55 billion USD; accounting for 1.62% of the total number of FDI projects (the whole country has 30,740 projects) and 0.98% of the total registered capital of FDI projects in the country (US\$362.24 billion). However, the number of projects as well as the registered capital of FDI projects in the agricultural sector is still modest compared to the whole industry, on average, each project only has a capital of about 7 million USD (140 billion VND). Meanwhile, each investment project in the processing and manufacturing industry has an average capital of 15 million USD (342 billion VND). The number of projects and the amount of registered capital over the years tend to decrease. From 2012 to now, on average, each year, it has only attracted less than 20 investment projects in the agricultural sector with capital of less than 100 million USD.



**Source:** Foreign Investment Agency-Ministry of Planning and Investment 2020 [2]

**Fig 3:** FDI registered capital and number of investment projects in the agricultural sector in Vietnam

Not only is the FDI capital structure decreasing, the structure of FDI in agriculture also focuses mainly on projects with quick capital recovery such as processing agricultural products and food; forest products processing, livestock and fodder processing. That situation shows that, not only is the source of FDI in agriculture not commensurate with the potential and strengths of Vietnam's agricultural development, and active projects do not really want to stick with Vietnam's agriculture for a long time, even though in the past 10 years, the Government of Vietnam has issued preferential policies to attract FDI in agriculture and rural development.

On the other hand, compared with FDI activities in other fields, the implementation efficiency of FDI projects in the agricultural sector is still very low, limited, unstable and tends to decrease. Accumulated to 2019, in Vietnam, up to 15.6% of FDI projects in agriculture were dissolved ahead of time.

**Table 2:** Proportion of FDI in agriculture (Accumulation of valid projects until 31/12/2019)

S. No	Specialized	Project No.	Total investment (Million USD)	Capital structure (%)
1	Manufacturing and processing industry	14,422	214,174.89	59.06
2	Real estate business	868	58,433.26	16.11
3	Producing and distributing electricity, gas, water, air conditioning	132	23,653.83	6.52
4	Accommodation and catering services	839	11,990.16	3.31
5	Construction	1,693	10,407.78	2.87
6	Wholesale and retail, and repair cars, motorbikes, motorbikes	4,544	8,144.23	2.25
7	Warehousing transportation	823	5,067.32	1.40
8	Mining	108	4,897.54	1.35
9	Education and training	525	4,376.15	1.21
10	Information and communication	2,145	3,871.02	1.07
<b>11</b>	<b>Agriculture, forestry, and fisheries</b>	<b>498</b>	<b>3,557.02</b>	<b>0.98</b>
12	Arts, entertainment, and recreation	135	3,388.38	0.93
13	Professional science and technology activities	3,217	3,200.07	0.88
14	Water supply and waste treatment	75	2,857.44	0.79
15	Health and social assistance activities	148	1,989.36	0.55
16	Administrative activities and support services	438	968.99	0.27
17	Other service activities	71	822.91	0.23
18	Financial, banking and insurance activities	141	820.29	0.23
19	Employment activities in households	6	8.37	0.00
Total		30,828	362,629.02	100.00

**Source:** Foreign Investment Agency 2020 [2]

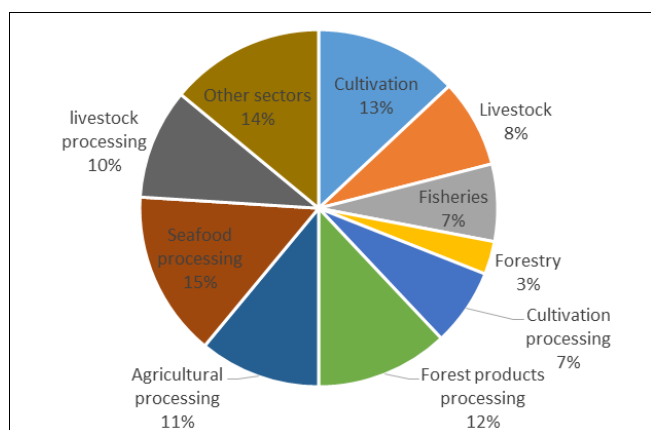
Compared with other industries, the amount of FDI attracted to the agricultural sector is the lowest and accounts for a very small structure compared to the total FDI capital of the whole industry. Processing and manufacturing industries

and real estate business are two industries that are attracting a lot of FDI into Vietnam, with about 80% of the capital. The reasons for the restriction of attracting FDI inflows into agriculture depend on many factors, mainly due to the

characteristics of the agricultural industry, which requires a large area of land, often has weather risks, has a long payback period, and the profit earned is often lower than other industries, so it is difficult to attract capital investment in this area.

**Structure of FDI in the Agricultural Sector**

Structure of FDI in the agricultural sector by sub-sector  
 In the early 1990s, foreign direct investment projects in the agricultural sector were mostly projects in exploitation and processing of wood and forest products. But up to now, investment projects have been more diversified and quite uniform in all fields of cultivation, livestock and poultry raising, planting and processing forest products, afforestation and production of paper materials, sugar cane production, fodder production.



Source: Foreign Investment Agency 2020 [2]

Fig 4: Structure of FDI in agriculture

Of the total FDI inflows into the agricultural sector, FDI in the processing industry takes the leading position, accounting for 55%, followed by the cultivation industry (13%), livestock 8%, fisheries 7% and the forestry sector with the lowest proportion of capital (3%). The amount of FDI in the agricultural sector is not commensurate with the potential and strengths of our country in this field. In the cultivation and processing of agricultural products, FDI tends to focus on exploiting the potential and available resources of land, labor, etc. There have not been many projects to create new plant and breeds varieties, and raising, planting and processing all kinds of vegetables, tubers and fruits for export with high technology content, good quality, suitable to Vietnam's conditions.

FDI in forestry, especially in afforestation and forest product processing, has not really reached the desired scale and efficiency, and has not brought significant benefits to investors, the State and employees. Forestry and wood processing projects only focus on using imported raw materials (80%), while every year Vietnam exports woodchips and wood materials in the large quantities.

The exploitation and use of land by FDI projects in the agricultural sector is not effective. Many afforestation projects occupy quite a large area of land, but the actual efficiency per hectare of land use is still very low. Some projects on afforestation for raw materials and processing agricultural products did not bring the expected results.

Besides, there are many projects that have a negative impact on the landscape, the natural environment, and even affect national security.

FDI in the seafood industry has been reduced due to focusing on projects to produce new breeds, process value-added products, and raise seafood of high economic value. On the other hand, investment in this industry decreased because the level of aquaculture and processing of domestic enterprises in Vietnam has improved, meeting the requirements of international standards and the import market.

Structure of FDI in the Agricultural Sector by Form of Investment

In agriculture, FDI projects into our country have three basic forms: 100% foreign direct investment capital, joint venture, and business cooperation contract. In which, the form of 100% foreign capital accounts for the majority with 400 projects, with a total registered capital of 2.8 billion USD, accounting for 80.32% of projects and 79.91% of total registered capital. Next is the form of joint venture, accounting for 18.47% of the projects and 19.97% of the registered capital. The form of contracts and business cooperation accounts for a very small proportion.

Table 3: FDI in agriculture by investment form (Accumulation of valid projects until 31/12/2019)

S. No	Investment forms	Project number	Total FDI (million USD)	FDI proportion (%)
1	100% foreign direct investment capital	400	2,842.24	79.91
2	Joint venture	92	710.25	19.97
3	Business cooperation contract	6	4.52	0.12
	Total	498	3,557.02	100

Source: Foreign Investment Agency 2020 [2]

Structure of FDI in Agriculture by Investment Partners  
 Foreign partners participating in investment in the agricultural sector still lack diversity. By the end of 2019, there were 33 countries and territories around the world investing FDI in Vietnam's agricultural sector, mainly Asia countries. Specifically: Taiwan has the largest number of projects with 150 projects, accounting for 30.12% of projects and accounting for 17.99% of FDI capital. Followed by British Virgin Islands with 5.02% of projects and 16.06% of capital; Singapore with 6.63% of projects and 10.9% of capital. Asian countries are still the largest investors in terms of both the number of projects and the proportion of investment capital in Vietnam's agriculture, partners from Europe account for a very small proportion. Investors from the rest of the world, especially the countries with a strong agricultural industry such as the United States, Canada, and Australia, have not really paid attention to Vietnam's agricultural industry. Specifically, US investment accounted for 2.81% of projects and 4.62% of capital; Australia accounted for 5.02% of the projects and 3.48% of the capital; Canadian investment is less than 0.61% of projects and 0.25% of capital. This also implies Vietnam's limited access to high-quality FDI inflows and source technology holders.

**Table 4:** FDI in agriculture by investment partners (*Accumulation of valid projects until 31/12/2019*)

S. No	Partner	Project number	Total FDI (million USD)	Project number proportion (%)	Capital investment proportion (%)
1	Taiwan	150	648.15	30.74	18.84
2	British Virgin Islands	26	571.56	5.33	16.61
3	Singapore	30	324.28	6.15	9.43
4	Hongkong	27	269.91	5.53	7.85
5	Thailand	29	248.02	5.94	7.21
6	Japan	41	225.22	8.40	6.55
7	Malaysia	21	195.51	4.30	5.68
8	USA	13	160.04	2.66	4.65
9	Australia	23	118.55	4.71	3.45
10	Korea	38	114.88	7.79	3.34
Total of 10 countries		398	2,876.12	81.56	83.60
Remaining territory		90	564.32	18.44	16.40

Source: Foreign Investment Agency 2020 <sup>[2]</sup>

The above structure reflects Vietnam's limited ability to mobilize and call for investment promotion in the agricultural sector. The promotion of the potentials and strengths of Vietnamese agriculture to the world has not been carried out methodically and with a strategic vision. Exhibitions and displays of agricultural products have not been held regularly. In addition, preferential policies for FDI in the agricultural sector are not many, not enough to attract investors to invest in the agricultural sector. The developed agriculture in the world has not paid much attention to Vietnam's agriculture. If Vietnam's agriculture can attract investment from countries with developed agriculture, We will gain a lot of benefits, not only the amount of FDI capital, but we also take advantage and absorb modern technology, advanced production processes, modern management experience. We will gain a lot of benefits, not only the amount of FDI capital, but we also take advantage and absorb modern technology, advanced production processes, modern management experience, etc.

#### ▪ Structure of FDI in Agriculture by Locality

By the end of 2019, the total number of FDI projects invested in the agricultural sector in Vietnam was 498 projects. The number of projects and FDI inflows into the agricultural sector has been small, the project structure and this capital source are distributed unbalanced in localities of the country. Although there are 57/64 provinces and cities with FDI projects in the agricultural sector, most of these FDI projects focus on localities with advantages in infrastructure, human resources, raw material areas and favorable soil and climate conditions such as Binh Duong (80 projects), Lam Dong (55 projects), Dong Nai (46 projects), Ho Chi Minh City (8 projects), Hanoi (22 projects), Binh Phuoc (24 projects), Binh Thuan (20 projects). In terms of investment capital, Binh Duong and Dong Nai are the two provinces with the highest registered capital, followed by Dong Nai, Thanh Hoa, and Quang Ninh.

**Table 5:** FDI in agriculture by location (*Accumulation of valid projects until 31/12/2019*)

S. No	Province	Project number	Project number proportion (%)	Total FDI (million USD)	FDI proportion (%)
1	Đông Nai	46	9.24	590.19	16.59
2	Binh Duong	80	16.06	532.05	14.96
3	Lsm Đông	55	11.04	236.59	6.65
4	Thanh Hoa	6	1.20	180.53	5.08
5	Quang Ninh	10	2.01	129.81	3.65
6	Vinh Phuc	7	1.41	111.46	3.13
7	Khanh Hoa	14	2.81	102.56	2.88
8	Nghe An	5	1.00	100.05	2.81
9	Tay Ninh	12	2.41	98.88	2.78
10	Binh Định	10	2.01	94.65	2.66
Total 10 provinces		245	49.20	2,177.00	61.20
Remaining provinces		253	50.80	1,380.02	38.80
Total		498	100	3,557.02	100

Source: Foreign Investment Agency 2020 <sup>[2]</sup>

While Vietnam's FDI tends to increase, this capital inflow into the agricultural sector is too small in terms of project size and the proportion of investment capital compared to the total FDI capital of the country. This is requiring the agricultural sector to have a strategy, orientation with a new mindset to increase the scale of FDI capital, promoting Vietnam's agriculture to develop rapidly and sustainably in a

modern way, contribute to complete the cause of socio-economic development of the country.

## 4.2 Factors Affecting Foreign Investors' Investment Decisions in Vietnam's Agricultural Sector

### 4.2.1 Evaluation of the Scale by Reliability Coefficient Cronbach Alpha

**Table 6:** Cronbach Alpha coefficient of the last running scale in the model

Observed variables	Variable Name	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
<b>CSHT</b>	<b>Infrastructure &amp; service</b>	<b>Cronbach Alpha = 0.887</b>			
CSHT1	Electricity distribution system	17.773	34.257	.568	.884
CSHT2	Water supply, drainage, irrigation system	18.364	32.850	.710	.866
CSHT3	Information and communications technology	18.023	32.914	.674	.871
CSHT4	Traffic	18.182	33.007	.654	.873
CSHT5	Banking and auditing system	18.028	32.131	.739	.862
CSHT6	Price of electricity, water, transport	18.006	33.320	.684	.869
CSHT7	Price of contact information	17.795	32.529	.722	.865
<b>DKTN</b>	<b>Natural condition</b>	<b>CA = 0.837</b>			
DKTN2	Fuel Resources	9.528	10.182	.651	.802
DKTN3	Climate, environment	9.705	9.535	.750	.756
DKTN4	Land, ground	9.477	10.731	.600	.823
DKTN5	Land rents	9.676	10.117	.676	.791
<b>KTVM</b>	<b>Macroeconomic environment</b>	<b>CA= 0.808</b>			
KTVM1	Population size	14.415	8.850	.559	.782
KTVM2	Economic growth (GDP)	14.261	8.651	.498	.806
KTVM3	Stable inflation	14.068	8.487	.671	.748
KTVM4	Rate of return on investment	14.136	8.896	.632	.761
KTVM5	Exchange rate	14.187	8.645	.636	.759
<b>MTXH</b>	<b>The social environment</b>	<b>CA = 0.860</b>			
MTXH1	Education level	19.313	28.147	.512	.857
MTXH2	Social evils and crime	19.415	25.913	.618	.843
MTXH3	Living cost	19.205	27.066	.643	.838
MTXH4	Unskilled labor source	19.165	26.516	.671	.834
MTXH5	Ability to absorb and apply technology	19.761	28.274	.625	.841
MTXH6	Labor cost	19.080	28.016	.651	.838
MTXH7	Discipline of labor	18.926	27.280	.705	.830
<b>TCCS</b>	<b>Institutions and policies</b>	<b>CA = 0.938</b>			
TCCS1	Administrative procedures	17.682	26.904	.799	.929
TCCS2	Import and export procedures	17.744	25.849	.850	.923
TCCS3	Deployment of legal documents	17.841	24.992	.848	.923
TCCS4	Investment incentive policy	17.756	26.014	.807	.928
TCCS5	Investment promotion activities	17.625	26.750	.807	.928
TCCS6	Satisfactory settlement of disagreements	17.858	26.043	.788	.931
<b>QD</b>	<b>Investment decision</b>	<b>CA = 0.806</b>			
QD1	The agricultural sector is an opportunity for investors	10.278	2.659	.664	.737
QD2	Long-term investment	10.295	2.369	.745	.692
QD3	Expand investment scale	10.227	3.011	.449	.835
QD5	Introduce other investors to invest	10.261	2.663	.644	.746

Source: Compiled from survey results and author's calculations

**4.2.2 Evaluation of the Scale by Exploratory Factor Analysis (EFA)**

**Table 7:** KMO coefficients and Bartlett's test

KMO coefficients		.860
Bartlett's test	Approx. Chi – Square	3,301.368
	df	496
	Sig.	0.000

Source: Compiled from survey results and author's calculations

**Table 8:** Factor loading coefficient, Eigenvalue index and the total variance extracted from the last EFA

	Factor					
	1	2	3	4	5	6
TCCS2	.893					
TCCS5	.884					
TCCS6	.837					
TCCS3	.837					
TCCS1	.837					
TCCS4	.749					



CSHT5		.840				
CSHT6		.836				
CSHT7		.744				
CSHT2		.694				
CSHT4		.688				
CSHT3		.643				
CSHT1		.589				
MTXH1			.759			
MTXH2			.700			
MTXH5			.694			
MTXH4			.630			
MTXH7			.614			
MTXH6			.529			
DKTN3				.841		
DKTN5				.770		
DKTN4				.708		
DKTN2				.692		
KTVM5					.818	
KTVM3					.780	
KTVM4					.608	
KTVM2					.597	
QD1						.807
QD2						.804
QD5						.527
Eigenvalue	7.369	4.972	3.135	2.061	1.510	1.145
Total variance extracted	23.409	38.483	47.692	53.287	56.674	59.266

Source: Compiled from survey results and author's calculations

EFA analysis results show that there are 6 factors extracted at  $\lambda = 1.145 > 1$  and the total variance extracted is  $59.266\% > 50\%$ . There are 5 factors representing the factors affecting the size of investment capital (QD) included QD1; QD2; QD5 with the characteristic variables rearranged differently from the original theoretical model: The first factor – Institutions & policies (TCCS) including variables TCCS1; TCCS2; TCCS3; TCCS4; TCCS5; TCCS6 in which, the smallest factor weight is  $0.749 > 0.50$  The second factor – infrastructure and service (CSHT) including variables CSHT1; CSHT2; CSHT3; CSHT4; CSHT5; CSHT6; CSHT7 in which, the smallest factor weight is  $0.589 > 0.50$ . The third factor - The social environment (MTXH) including variables MTXH1; MTXH2; MTXH4; MTXH5;

MTXH6; MTXH7 in which, the smallest factor weight is  $0.529 > 0.50$ . The fourth factor – Natural condition (DKTN) including variables DKTN2; DKTN3; DKTN4; DKTN5, in which, the smallest factor weight is  $0.692 > 0.50$ . The fifth factor – Macroeconomic environment (KTVM) including variables KTVM2; KTVM3; KTVM4; KTVM5, in which, the smallest factor weight is  $0.598 > 0.50$ .

**4.2.3 Evaluation of the scale by confirmatory factor analysis (CFA)**

CFA analysis of 6 factors with 30 observed variables satisfying the conditions was performed using AMOS 22 software, the results of the CFA analysis are shown in Fig 1

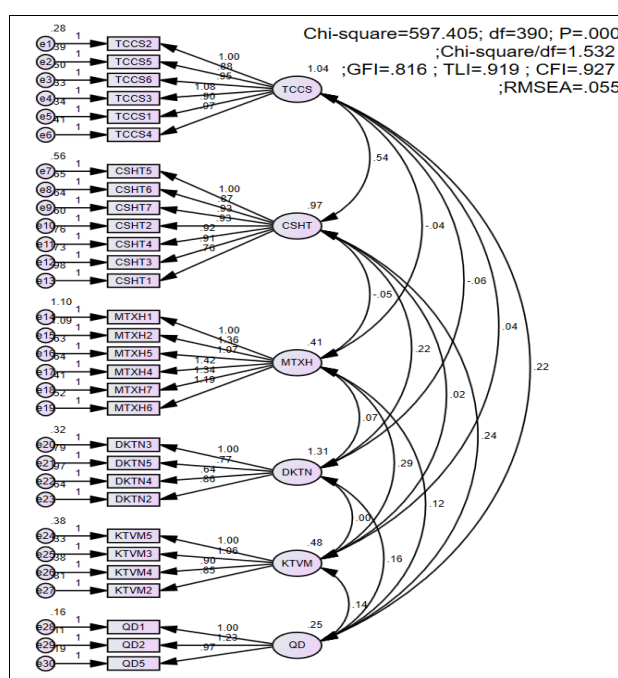


Fig 5: CFA results of the scales in the research model

According to the CFA analysis, there are 6 factors and 30 observed variables that satisfy the requirements. For the general fit, the CFA analysis showed the following results: Chi-squared is 597.405 with 390 degrees of freedom and  $p =$

0.000; Chi – squared adjusted for degrees of freedom (CMIN/df) was 1.532 (<2), CFI = 0.927 (>0.9), TLI = 0.919 (> 0.9) and RMSEA = 0.055 (<0.06) so this model is suitable with research data.

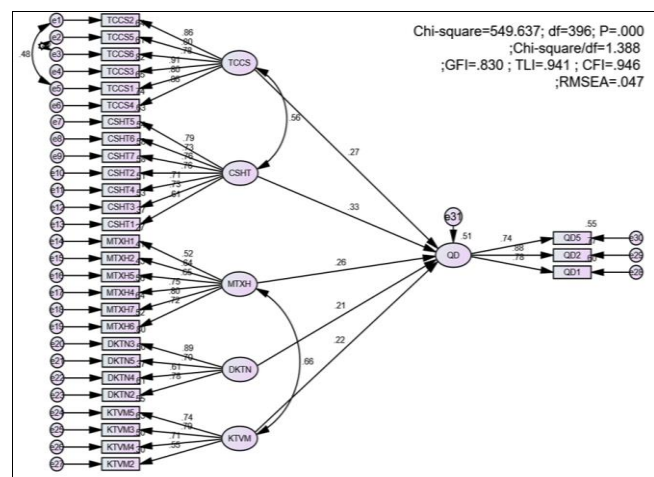
**Table 9:** Results of aggregate reliability and extracted variance of the scale

S. No	Factor	Observed variables number	Reliability coefficient (Alpha)	Reliability of Aggregate-Level	Variance Extracted
1	Infrastructure and service	7	0.887	0.888	0.533
2	Institution & policy	6	0.938	0.939	0.719
3	The social environment	6	0.860	0.840	0.502
4	Macroeconomic environment	4	0.808	0.793	0.504
5	Natural conditions	4	0.837	0.836	0.566
6	Investment decision	3	0.806	0.842	0.641

Source: Compiled from survey results and author's calculations

Table 4 shows that the overall reliability of the research concepts: Infrastructure and service, institutions & policy, social environment, Macroeconomics environment, natural conditions, investment decisions are respectively: 0.888; 0.939; 0.840; 0.793; 0.836; 0.842 (> 0.6), variance extracted respectively: 53.3%; 71.9%; 50.2%; 50.4%; 56.6% 64.1%. Overall rating is relatively good.

**4.2.4 The results of examining the research model by Structural equation modeling (SEM)**



**Fig 6:** SEM analysis results of the final normalized research model

Unnormalized estimation results of the parameters the final SEM model (Table 5) shows the positive relationship of the concepts of infrastructure, policy institutions, social environment, macroeconomics, natural conditions with investment decisions with statistical significance with the significance level at 5% ( $P < 0.05$ ).

**Table 10:** Testing the causal relationship of the model's variables

S. No	Relationship	Estimate	S.E.	C.R.	P	Normalization coefficient
1	QDN<--TCCS	.135	.043	3.150	.002	0.27
2	QD<---CSHT	.167	.045	3.746	***	0.33
3	QD<---MTXH	.206	.084	2.438	.015	0.26
4	QD<---DKTN	.091	.030	3.014	.003	0.21
5	QD<---KTVM	.157	.076	2.048	.041	0.22

The results of the dstandardized estimation of the parameters (Fig 2) show that institutions & policy factors, infrastructure and service, social environment, natural conditions, and

macroeconomics environment all affect the decision of foreign investors to enter the agricultural sector in Vietnam with the degree respectively of 0.27; 0.33; 0.26; 0.21; 0.22. The Squared Multiple Correlation result of the model is 0.513, showing that the model's factors explain 51.3% of the variation of the investment decision.

**4.2.5 Result of Model Examining using Bootstrap**

In this study, testing the research model by bootstrap method using repeated sample data  $N = 1000$ . The results of the bootstrap analysis show that the absolute values of CR are small. Therefore, the bias appears, but is relatively small, not statistically significant with the level of significance at 5% (Table 6).

**Table 11:** Results of model estimation by bootstrap with  $n = 1000$

Parameter	SE	SE-SE	Mean	Bias	SE-Bias	C.R
QD<--- TCCS	0.073	0.002	0.266	-0.001	0.002	-0.50
QD<---CSHT	0.078	0.002	0.331	0.001	0.002	0.50
QD<---MTXH	0.105	0.002	0.267	0.003	0.003	1.00
QD<---DKTN	0.072	0.002	0.209	0	0.002	0.00
QD<---KTVM	0.099	0.002	0.213	-0.004	0.003	-1.33

Source: Compiled from survey results and author's calculations

**4.2.6 Discussion**

\* Infrastructure and service

Research results show that the investment decision of foreign investors contributed by infrastructure is 0.33. The normalization factor is 0.33, i.e., when infrastructure-related factors change by 1 unit (in the likert scale), the investment decision of foreign investors will change in the same direction by 0.33 units. The reason that infrastructure is considered the most important component can be explained that, the convenience of infrastructure factors will help investors reduce investment costs while increasing benefits and convenience for factory establishment, and will strongly influence investment intention, investment decision should be considered more important than other factors. This also implies that foreign investors prioritize their production and business development/investment in the places where they are satisfied with infrastructure conditions over places with poorer infrastructure. They especially emphasize the existence of well-developed infrastructures such as availability and quality of services providing electricity, water, irrigation, roads, bridges, ports and communication technology. This is also consistent with (John H. Dunning, 1980) [14] (J.H. Dunning, 1988) [15] (J. H Dunning, 1993) [16] and the research of (Khalid Sekkat and Marie Ange

Veganzones Varoudakis, 2007) <sup>[40]</sup>, (Khadarool A. J and Seetanah B, 2010). Accordingly, a country will become an investment location for foreign investors if it creates advantages in providing elements of infrastructure and economic conditions for production and business.

#### \* Natural conditions

From an investor's perspective, when deciding to invest in a project, natural conditions are also paid special attention, because if the topographical conditions are favorable, the location of the project is favorable, the project implementation process is more favorable, minimizing risks due to geographical location, topography, or climate. Research results show that foreign investors' perception of natural conditions makes the fifth most important contribution (0.21). The group of factors belonging to natural conditions also has an impact on the dependent variable of foreign investors' investment decision (P-value =  $0.003 < 0.05$ ) with a normalized coefficient of 0.21. Thus, when natural conditions change by 1 unit (in the Likert scale), the investment decision of foreign investors also changes in the same direction by 0.21 units. Especially in which, climate, environment; resources, fuel; land rent plays a more important role than other components. Regarding the land issue, the 2013 land law has created favorable conditions for enterprises in general and FDI enterprises in renting land in remote areas for production planning. However, with unplanned areas, it has made it more difficult to negotiate land lease with people of enterprises. Therefore, according to the assessment of FDI enterprises, the issue of land rental is one of the outstanding problems for enterprises.

#### \* Macroeconomics environment

Vietnam's economic index is one of the highlights among FDI attractiveness indicators. In which, there are two groups of attractive factors for investment including: macroeconomic stability and economic growth, labor costs and productivity. The group of macroeconomic factors is also a parameter affecting the dependent variable of foreign investors' investment decision (P - value =  $0.041 < 0.05$ ) with a normalized coefficient of 0.22, however the level of impact is relatively low. Thus, when the macroeconomic environment factor changes by 1 unit (in the Likert scale), the investment decision of foreign investors changes in the same direction by 0.22 units. Research results show that investors' perception of the favorable macroeconomic environment affects investment decisions (0.22). Mức độ quan trọng của các thành phần góp phần tạo nên sự thuận lợi của yếu tố này gồm: stable inflation (0.79), stable exchange rate (0.74), return on investment (0.71), economic growth (0.55). This result is consistent with the reality of Vietnam today and is consistent with the perception that there is a positive relationship between macroeconomic factors and investment decisions of foreign investors by (Piotr Bialowolski and Dorota Weziak-Bialowolska, 2013) <sup>[5]</sup>. Or the study of (Chin-Shang Lu and Ching-Chiao Yang, 2007) <sup>[11]</sup> also stated: The market size at the expected investment location has a positive impact on the investment intention of enterprises. Besides, the study by (Jia He, Oliver M. Rui *et al.*, 2011) <sup>[24]</sup> also confirmed: Economic environment, however, the impact here is negligible on the investment decision of foreign investors. This is completely relevant to Vietnam. Despite of constantly facing uncertainties and

challenges when the world economy experienced a recession in the last 10 years, Vietnam still maintains an average GDP growth rate of over 6%/year. High and stable growth rate over many years has always been an important factor attracting foreign investment. Therefore, the high growth rate compared to other countries in the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) helps Vietnam improve its competitive position in the race to attract investment capital. In addition, Vietnam also maintained the stability of other macroeconomic indicators. Inflation rate in recent years has been well controlled at less than 5%. The foreign exchange rate has always been maintained at a stable level, without abnormal fluctuations affecting the economy. Credit growth is also tightly controlled.

#### \* Institution & policy

Research results show that, there is a positive correlation between government institutions and policies on investment decisions of foreign investors in Vietnam's agricultural sector, perceptions of foreign investors about the advantages of institutional and policy factors contributing 0.27 to foreign investors' investment decisions, in which the implementation of state documents to enterprises (0.91), preferential policies for investors (0.88), customs procedures (0.86), administrative procedures (0.80), the support of promotion and trade centers (0.80), settlement of disagreements between workers and enterprises (0.78). The SEM analysis results also show that the normalization coefficient has a positive sign, showing the positive relationship between the state policy institutions and investment decisions of foreign investors with the significance level P-value =  $0.002 < 0.05$  and the normalization coefficient is 0.27. Thus, when the institutional policy factor changes by 1 unit (in the Likert scale), the investment decision of foreign investors changes in the same direction by 0.27 units. The results of this study are consistent with previous studies of (A. Bevan, S. Estrin *et al.*, 2004) <sup>[4]</sup>, (K.E. Meyer and H.V. Nguyen, 2005) <sup>[34]</sup>, (Khalid Sekkat and Marie Ange Veganzones Varoudakis, 2007) <sup>[40]</sup>, that the policy factors of the State have an influence on the investment decision making of foreign investors. In the past long time, the State's policy system to support foreign direct investment enterprises has made remarkable progress, becoming more and more complete and comprehensive. Vietnam has continuously improved institutions and financial incentives for foreign-invested enterprises. Conclusion, financial incentives focus on three areas: (i) CIT incentives, (ii) Import and export tax incentives and (iii) Land finance incentives have a positive influence on foreign investors' investment decisions.

#### \* Social environment

Social environment is one of the important factors for businesses to decide to invest in Vietnam. Research results show that social environment has a positive influence on investment decisions of foreign investors with P-value =  $0.015 < 0.05$  and normalized coefficient is 0.26. This means that when the socio-environmental factor changes by 1 unit (in the Likert scale), the investment decision of foreign investors changes by 0.26 units. In the social environment group, the discipline of labor, the quantity of labor and the cheap labor cost are the factors that have the most influence on the investor's decision. When considering the advantages

of labor, Vietnam is considered an attractive investment destination due to the advantage of an abundant and low-cost labor market. With more than 90 million people and the number of people of working age accounting for 51% of the country's population, Vietnam is in the golden period in terms of population structure. This is a young, healthy, dynamic workforce with potential and ability to acquire advanced knowledge to meet the requirements of the knowledge economy. Investors believe that Vietnam's labor productivity may be lower than that of some developed countries, but in the relation to Vietnam's labor prices, the labor cost per product is still cheap. For example, the labor productivity of workers at Samsung Vietnam Factory is 80% compared to Korea, while the labor cost in Vietnam is only 20% of the cost in Korea. The source of young and cheap labor in Vietnam is expected to become a "magnet to attract international investors". This conclusion is similar to some previous studies of (Doan Thi Thanh Hoa and Jan-Yan Lin, 2016) <sup>[25]</sup>, the authors confirmed the social environment, access to information, business support services, the cost of implementing policies is closely related to investors' investment decisions; (Jose I Galan, Javier Gonzalez-Benito *et al.*, 2007) <sup>[19]</sup> found that the social environment is important when FDI enterprises decide to invest in Latin American countries.

## 5. Conclusion and Policy Implications

### 5.1 Conclusion

With the results of research on the influence of factors on investment decisions of foreign investors in the agricultural sector, in order to enhance the attraction of FDI into Vietnam's agricultural sector in the coming time, it is necessary to focus on improving the factors in order of priority respectively: infrastructure, policy institutions, social environment, macroeconomics and natural conditions. In each factor, it is necessary to focus on those that are important and are underestimated by investors.

### 5.2 Policy Implications

#### 5.2.1 Infrastructure

- Increase investment in infrastructure development for agriculture and rural areas. Increase the state budget to invest in infrastructure development, creating conditions for infrastructure to be one step ahead of foreign investors towards agriculture, forestry, and fishery.
- Planning social infrastructure system including banking system, audit...; develop communication systems. Continue to improve and develop the banking system, financial services, and audit, in order to improve service quality for businesses in payment, money transfer, loan, inspection, business performance evaluation, facilitate FDI enterprises in using financial services quickly, efficiently and safely.
- Building high-tech agricultural zones with two spearheads, application in agricultural production and promote research and technology transfer. This is an inevitable direction because the current conditions of agricultural land are shrinking, agricultural labor is decreasing.

#### 5.2.2 Institutional & Policy

- In order for the agricultural sector to capture opportunities from the "wave" of FDI, the agricultural

sector needs to develop a long-term strategy to attract FDI into agriculture, focus on improving the efficiency and quality of planning and development plans of each industry and each product towards cohesion with the objectives and tasks to increase the attractiveness of agriculture in the eyes of foreign investors.

- Review the policy implementation so that there is no overlap between the back-to-back document and the front-end document, but still in effect; propose recommendations to the competent authorities to develop and complete a synchronous investment policy, unify and continue to improve administrative procedures towards creating favorable conditions for investors.
- Publicly and transparently implement regulations on administrative procedures in terms of order and procedures, jurisdiction, prescribed time, and fee levels. Continue to implement and improve the efficiency of the "one-stop shop" mechanism to simplify administrative procedures.
- Review current tax incentives based on "profit" and propose tax incentives and incentives based on "efficiency" for agriculture.
- Strengthen investment promotion towards demand, investors' investment potential and trends especially the group of investors has strengths in technology.
- Encourage the development of investment forms with technology transfer in order to increase added value along the chain of goods for a number of key and strong agricultural products. Calling for agricultural inputs in the region such as investment projects to improve production and processing capacity, application of high technology in production, post-harvest preservation technology as well as special incentives, encouraging investors to invest.

#### 5.2.3 Social Environment

- Focus on developing human resources, gradually forming a team of skilled, disciplined, highly competitive workers to meet the needs of investors, In which, priority should be given to labor resources and human resources for industries with high technology content and high added value in key and highly advantageous sub-sectors. In which, priority should be given to labor resources and human resources for industries with high technology content and high added value in key and highly advantageous sub-sectors.
- Well perform the work of forecasting labor demand, to orient the training work. Forecasts need to indicate specific needs in terms of quantity and level.

#### 5.2.4 Macroeconomic

- It is necessary to continue to ensure and maintain political stability as well as macroeconomic stability thereby controlling inflation and creating a driving force to promote economic growth recovery in the coming time. The impact of the global economic crisis and political crisis in some countries and regions has made the global FDI flow tend to shift to countries with higher economic growth potential as well as political stability.
- In term of the exchange rate, in the past, the Government of Vietnam maintains a floating exchange



rate regime with state control is suitable for the development situation of the country. The fact that the devaluation of the local currency against the USD tends to increase over the years has increased the value of exported goods, thereby attracting many foreign investors to Vietnam. However, the exchange rate does not only affect the export of goods but also for imports, trade balance, national debt, inflation rate and especially the public's belief in the effectiveness of the Government's monetary policy management. Therefore, the exchange rate control should be more flexible, should be based on the supply-demand relationship of the market. On the one hand, it still supports exports to attract foreign investment, on the other hand, it still harmonizes other socio-economic goals.

- Continue to implement flexible monetary policy and control fiscal policy in order to stabilize the macroeconomy. It is necessary to manage interest rates in line with the inflation control target; increase credit balance appropriately in addition to ensuring credit quality; effectively manage the exchange rate, foreign exchange market, gold market, guarantee the value of the Vietnamese currency; boost exports and control import; increase foreign exchange reserves; promoting the development of capital market and securities market; strengthening state budget management, focus on combating loss of revenue, thoroughly implement thrift, resolutely cut down on unnecessary expenses.

#### 5.2.5 Natural Conditions

- Because climate, weather and environmental conditions greatly affect production and business activities in the agricultural sector, it is necessary to have an agricultural insurance policy in case of natural disasters, crop failure, etc. This is a policy that not only benefits farmers, but also investors in order to minimize risks caused by weather, natural disasters and climate.
- Actively monitor the climate with the modernization of the monitoring system and hydro-meteorological forecasting technology, ensure early warning and forecast of extreme weather and climate phenomena; consolidate the construction of key and urgent natural disaster prevention works.
- Forest protection and sustainable development, increased absorption of greenhouse gases, biodiversity conservation, attach importance to the protection and development of ecosystems, varieties, and species with good resistance to climate change; accelerate the progress of afforestation projects, encourage enterprises to invest in economic afforestation.
- Develop material areas for factories and agricultural processing enterprises. Implement the investment and development policy for the raw material areas in a stable manner by supporting the capital for the development of infrastructure construction in these areas, completing rental policy for land, water service for resource development.
- Incentives for investors when clearing land for production investors outside the industrial zones. The lease of land and water surface for aquaculture must comply with the approved planning associated with the protection of the ecological environment. Simplify procedures for granting land use right certificates.

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