

# DETERMINANTS OF VIETNAM'S AGRICULTURAL EXPORTS, FOCUSING ON ITS TRADING PARTNERS' CHARACTERISTICS

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## Abstract

This study investigates the determinants of Vietnam's agricultural exports, focusing on its trading partners' characteristics. The author adopts Poisson Pseudo-Maximum Likelihood estimators to estimate a gravity model covering bilateral agricultural exports from Vietnam to 187 of its trading partners during 1996-2021. The empirical results reveal that exchange rate volatility and geographical distance hamper exports, while regional trade agreements (RTAs), shared borders, and dependent relationships in the past boost exports. When considering the features of importing countries, the author finds that population, GDP per capita, policy stability, and financial development are crucial in promoting Vietnam's agricultural exports. The findings of this study imply that it is necessary to maintain stable exchange rates and actively join RTAs to increase the agricultural exports of Vietnam. Moreover, to enhance agricultural exports, exporting firms should target trading partners in countries with large economic size, high per capita income, good governance quality, developed financial markets, or those who share a common border or have ever in dependent relationship with Vietnam.

*Keywords: Vietnam, agricultural exports, importer's characteristics, gravity model.*

## 1. Introduction

The role of export expansion in boosting economic development is widely documented in the literature. In the classical economic theories, Adam Smith and David Ricardo indicate the importance of international trade in economic growth. Then, the neoclassical theory formulated by Eli Heckscher and Bertil Ohlin emphasizes the role of factor abundance in international trade. Accordingly, each country will maximize its welfare by focusing on

producing and exporting products that use intensively its abundant factors. Increased exports will enhance growth by facilitating capital formation, technological innovation, domestic demand, and productivity [1, 2]

After the Renovation reform in Vietnam in 1986, the agricultural sector experienced remarkable development, going from a famine-stricken nation to one of the world's largest agricultural exporters [3]. Since the late 1990s, industrialization has made the agricultural sector less important in

total GDP, dropping from approximately 40.5% in 1991 to about 11.88% in 2022. Although the share of agricultural labor has gradually declined over the years, it remains at the highest level, accounting for 27.54% of the total employment in 2022. As a result, the agricultural sector has still played a crucial role in reducing poverty, creating jobs for labor in the countryside, and maintaining Vietnam's socioeconomic stability. Especially, the energy and food crises resulting from the Covid-19 pandemic and The Russia-Ukraine war in February 2022 have revealed the significance of the agricultural sector in protecting national food security. In recent years, several agricultural products in Vietnam, such as coffee, rice, and pepper, have been the top five of the world's largest exports [4]. Among Vietnam's trading partner, Germany, the United States, Italy, and Japan are the most important for coffee exports with their market shares being 17.8 percent, 11 percent, 10.7 percent, and 8.4 percent of Vietnam's coffee exports in 2021. In the meantime, the United States, China, United Arab Emirates, and Germany are the top trading partners for pepper exports, accounting for approximately 21 percent, 10.8 percent, 7.4 percent, and 6.3 percent of total pepper exports of Vietnam in 2021.

In the literature, there are some studies investigating the determinants of Vietnam's agricultural exports. For example, [5] assesses the influence of trade agreements on exports from Vietnam to RCEP countries during 2000-2013 by employing the gravity model. The author demonstrates that tariff reductions have no impact on Vietnam's agricultural exports but substantially enhance exports of several manufacturing products, such as footwear and garments. [6] analyzes the factors affecting Vietnam's

agricultural exports to the European Union during 2006-2016. They document that labor freedom, trade freedom, financial market development, and technological readiness promote the agricultural exports of Vietnam. [7] adopts fixed effects (FE) and Poisson Pseudo-maximum Likelihood (PPML) estimators for a gravity model to discover the drivers of rice and coffee exports of Vietnam from 2000 to 2018. The author notes that the GDP of Vietnam's trading partners positively affects coffee exports while it reduces rice exports. On the contrary, the GDP of Vietnam is an engine for boosting exports of both commodities. Moreover, the author emphasizes that technological development in Vietnam plays a crucial role in mitigating the adverse influence of geographical distance on exports.

Although the above studies have explored various determinants of Vietnam's agricultural exports, they have mainly focused on some specific commodities or a selective trading partner sample. Moreover, when discovering the drivers of Vietnam's agricultural exports, previous scholars have highly paid attention to Vietnam's characteristics. The studies on the features of Vietnam's trading partners are still limited. Researching on trading partners' characteristics enables exporting firms to easily choose their potential markets, boost their exports, and eventually improve their export performance. Therefore, this study expands the current knowledge on the determinants of Vietnam's agricultural exports by examining the factors influencing Vietnam's agricultural exports, focusing on its trading partners' characteristics. The research question of this study is: "Which factors affect Vietnam's agricultural exports, especially those related to its trading partners?". This study is conducted from

a broader perspective. Indeed, the author considers all products belonging to the agricultural sector (including forestry and fishing). Also, this study uses the largest dataset based on the availability of data, which covers bilateral agricultural exports from Vietnam to 187 of its trading partners from 1996 to 2021.

## 2. Methods

### 2.1. Research method

This study employs Stata14 software for data processing. The author adopts the Poisson Pseudo-maximum Likelihood (PPML) estimator for a gravity model, which is constructed based on a panel dataset covering Vietnam and 187 of its trading partners during 1996-2021.

An issue that should be paid attention to when applying the gravity model is zero values in statistics. To solve this problem, [8] suggests employing the Poisson Pseudo Maximum Likelihood (PPML) estimator with a multiplicative form instead of logarithm form of trade value. Also, [8] documents that the PPML estimator is an effective solution to handle the heteroscedasticity problem in bilateral trade data.

### 2.2. Empirical model specification

This study employs the gravity model to examine the link between bilateral exchange rate volatility and Vietnam’s agricultural exports, focusing on its trading partners’ characteristics.

The gravity model of trade, which is developed based on the logic of Newton’s

law of universal gravitation, predicts that international trade between two countries is proportional to their economic sizes (masses) and inversely proportional to their trade frictions (the square of distance) [9]. The following equation expresses the basic theoretical gravity model:

$$X_{i,j} = G * \frac{Y_i * Y_j}{T_{i,j}} \tag{1}$$

where  $X_{i,j}$  is the trade value between country  $i$  and country  $j$ ,  $Y_i$  is domestic production of country  $j$ ,  $Y_i$  is aggregate expenditure of country  $j$ ,  $G$  is the inverse of world GDP, and  $T_{i,j}$  represents the total trade costs between country  $i$  and country  $j$ .

To deal with the heteroscedasticity problem, [10] suggests including all interaction effects (i.e., importer-year, exporter-year, and exporter-importer fixed effects) when estimating the gravity model. However, if all interactions fixed effects are included, not only the time-varying explanatory variables but also the traditional gravity variables such as common characteristics of country-pair (common border, common language, colonial relationship, geographical distance, etc) will be automatically dropped during the estimation process. Therefore, the author follows [11] to include exporter-year fixed effects in the empirical model to control for all the time-varying observable and unobservable country-specific features of Vietnam. By using this approach, some features of importers can also be estimated in terms of their impact on trade. The baseline model is constructed as follows:

$$\begin{aligned} \text{Exp\_agri}_{VN,j,t} = & \exp[\alpha_0 + \alpha_1 \ln(\text{ex\_vol})_{VN,j,t} + \alpha_2 \ln(\text{pop})_{j,t} + \alpha_3 \ln(\text{gdp})_{j,t} + \alpha_4 \ln(\text{dist})_{VN,j} \\ & + \alpha_5 \text{RTA}_{VN,j,t} + \alpha_6 \text{CONTIG}_{VN,j} + \alpha_7 \text{COL}_{VN,j} + \alpha_8 \text{POL}_{j,t} + \alpha_9 \text{FINDEV}_{j,t} + \gamma_{VN,t}] * \varepsilon_{VN,j,t} \end{aligned} \tag{2}$$

where  $Exp\_agri_{VN,j,t}$  indicates bilateral agricultural exports from Vietnam to country  $j$  in year  $t$ . Bilateral trade data between Vietnam and its trading partners is constructed from the BACI database of the Centre d'Etudes Prospective et d'Informations Internationale (CEPII). This data source provides information on bilateral exports at the product level (i.e., the 6-digit Harmonized System Classification (HSC)) of over 5,000 products across more than 200 countries. The concordance table developed by the OECD, STAN Databases Team is utilized to match each product at the 6-digit HS code to the related industry of ISIC Rev.4. Since this study focuses on the agricultural sector (including forestry and fishing), the author only keeps products corresponding to divisions 01-03 of ISIC Rev.4.

Based on the extant literature on the drivers of exports, this study considers several factors, focusing on Vietnam's trading partners' characteristics, including:

**Exchange rate volatility.** Fluctuations in the foreign exchange market significantly influence production and sales because

they directly affect sellers' and buyers' expectations of profits. [12] indicates that price volatility is one of the main risks in international trade in the agricultural sector. The uncertainty about final product prices significantly affects agricultural production decisions. Thus, exchange rate fluctuation can adversely influence the export performance of the agricultural sector.

To measure volatility in the exchange rate between VND and the currencies of Vietnam's trading partners, the author first employs data on the monthly exchange rate of national currency per USD from the International Financial Statistics (IMF). The author constructs a monthly bilateral exchange rate between VND and each currency of Vietnam's trading partners (denoted by "*VND/partner's currency*"). Then, the author uses the consumer price index (CPI) from the World Development Indicators of the World Bank database to convert the monthly nominal bilateral exchange rate into the monthly real bilateral exchange rate (denoted by "*real\_er*") by adopting the following equation:

$$real\_er = VND/partner's\ currency \times \frac{CPI_{partner}}{CPI_{Vietnam}} \tag{3}$$

where  $CPI_{Vietnam}$  and  $CPI_{partner}$  are the CPI indices of Vietnam and its trading partners each year.

Following [13], the author measures real bilateral exchange rate volatility in year  $t$ , denoted by " $real\_d\_sd5_{VN,j,t}$ ", by the standard deviation of the first difference of the logarithm of the monthly real bilateral exchange rate in a rolling window of 5 years (from  $t-4$  to  $t$ ).

**Population of importer.** The population of Vietnam's trading partners is considered as a

factor that can influence Vietnam's exports because this variable reflects the demand and the market size of importing countries. The author expects that the larger the market size of Vietnam's trading partners, the greater the local demand for imported goods, which leads to an increase in Vietnam's exports. The author adds the logarithm of the total population of Vietnam's trading partner  $j$  in year  $t$ , denoted by " $\ln(pop)_{j,t}$ ",

as a determinant of Vietnam's agricultural exports.

**GDP per capita of importer.** GDP per capita is a macroeconomic factor reflecting the economic development level of a country. The higher the GDP per capita of the importer, the greater the budget that the country can spend for importing goods. [14] indicates that when the GDP per capita rises, the country tends to import more diversified commodities. Therefore, the author includes the logarithm of GDP per capita of Vietnam's trading partner  $j$  in year  $t$ , denoted by " $\ln(gdcp)_{j,t}$ ", as a potential driver of Vietnam's agricultural exports.

**Distances.** Distances indicate the geographical distance between Vietnam and its trading partner. In the gravity theory, distances capture trade costs. Thus, it is expected to hamper international trade. The author includes the logarithm of the geographical distance between Vietnam and partner  $j$ , denoted by " $\ln(dist)_{VN,t}$ " in the baseline model.

**Trade agreements.** Regional trading agreements are treaties that are signed by two or more countries to facilitate trade between their members. There is a set of internal rules governing the relationship between members. In contrast, non-member countries must follow less-favored external rules. The author includes " $RTA_{VN,j,t}$ " dummy variable in the model. This variable takes the value of 1 if Vietnam and a trading partner are members of a regional agreement in year  $t$  and 0 otherwise.

**Contiguous borders.** Shipping freight and transport risks are affected by geographical distances between countries. Closer distances reduce freight and transportation risks, thus promoting import-export activities. As a result, countries with shared borders

tend to trade more. The author includes " $CONTIG_{VN,j}$ " dummy variable in the baseline model. This variable takes the value of one if the two countries have contiguous borders and 0 otherwise.

**Colonial relationship.** Colonial or dependency relationship is another common control variable in the gravity model. If countries have ever been in a colonial or dependent relationship, they will have similar characteristics and are likely to trade more. The author includes " $COL_{VN,j}$ " dummy variable in the baseline model. This variable takes the value of 1 if Vietnam and its trading partner have ever been in a colonial or dependent relationship and 0 otherwise.

**Policy stability.** Policy stability represents the institutional and governance quality of an economy. Better institutional and governance quality provides more favorable environments and lower risks and uncertainties for all economic activities, thus enhancing trade activities [15]. [16] shows that governance quality significantly boosts agricultural imports in Sub-Saharan Africa. The author uses the "Political Stability and Absence of Violence" index (denoted by " $POL_{j,t}$ "), which is taken from the Worldwide Governance Indicators (WGI) to measure the political stability of Vietnam's trading partner  $j$  in year  $t$ .

**Financial development.** The financial system plays a crucial role in facilitating risk hedging and risk diversification [17]. Thanks to advanced financial instruments in the developed financial markets, firms can easily access funds and borrow money at lower cost [18]. [19] indicates that financial development is positively associated with trade flows. The author employs an index denoted by " $FINDEV_{j,t}$ " and published by the International Monetary Fund (IMF), to capture multifaceted features of financial

development in Vietnam’s trading partner  $j$  in year  $t$ . Higher values of the index imply greater financial development.

The dataset of this study comprises Vietnam and its 187 trading partners for the 1996-2021 period. There are several versions

of Harmonized System Classification (i.e., HS92, HS96, HS02, HS07, HS12, and HS17), the author uses version 1996, thus, the period covering in this study is from 1996 to 2021 based on data availability. The summary of all variables used in this study is shown in Table 1.

**Table 1. Summary statistics**

Variable	Obs	Mean	Std. Dev.	Min	Max	Source
$Exp\_agri_{VN,j,t}$	3461	98613.652	393086.13	.005	6772106.5	The BACI-CEPII and the OECD, STAN Databases
$\ln(ex\_vol)_{VN,j,t}$	3461	-3.624	.741	-6.36	.307	Author’s construction based on data from the IMF
$\ln(pop)_{j,t}$	3461	8.907	1.936	3.864	14.161	World Development Indicator - World Bank
$\ln(gdpc)_{j,t}$	3461	2.244	1.231	-.722	4.942	
$POL_{j,t}$	3461	.032	.915	-2.81	1.759	
$\ln(dist)_{VN,j}$	3461	8.997	.721	5.352	9.883	The gravity dataset-CEPII
$RTA_{VN,j,t}$	3461	.09	.286	0	1	
$CONTIG_{VN,j}$	3461	.019	.137	0	1	
$COL_{VN,j}$	3461	.13	.337	0	1	
$FINDEV_{j,t}$	3461	.418	.226	.017	1	

Source: Author’s elaboration

### 3. Results and discussion

#### 3.1. Description of Vietnam’s agricultural exports

Vietnam has been considered as an emerging manufacturing due to its strategic location in the middle of Southeast Asia, its abundance of cheap labor force, and its stable governance. Data from the BACI-CEPII indicates that the share of manufacturing exports in total commodity exports of Vietnam has increased significantly from about 69.67 percent in 1996 to approximately 97 percent in 2021. Despite a downward trend in agriculture’s share of total Vietnam’s exports, it has become increasingly important since 2014, accounting for about 2.3% of Vietnam’s total commodity exports in 2021.

Among agricultural products, coffee leads the list with its share in Vietnam’s total agricultural exports, making up 27.42 percent in 2021, followed by fruits, pepper, natural rubber, etc. Especially, increasing export volume by more than 8.3 times during 2010-2021, fruits boosted its rank to second in 2021, with its share in Vietnam’s agricultural exports being 16.88 percent in 2021.

Table 2 exhibits the top 10 trading partners with the highest values of Vietnam’s agricultural exports in 1996 and 2021. In 1996, The United States, Germany, and Japan were Vietnam’s most important partners in agricultural exports. More specifically, the United States was the leading country, with its import share accounting for around 20.5 percent of the total agricultural exports of

Vietnam, followed by Germany and Japan, respectively. China only ranked fifth in 1996 with about 34.21 million US dollars in agricultural imports from Vietnam. It raised its agricultural import volume from Vietnam by more than 69 times in 2021, making it the leading country in recent years. By contrast, the United States agricultural imports from Vietnam in 2021 only increased by approximately six times, resulting in a decline in rank. A similar pattern can be seen in the case of Germany and Japan. In 2021,

Germany only raised its agricultural imports from Vietnam by about 7.3 times compared to 1996, causing it to lose its second rank and remain third after China and the United States. Similarly, in 2021, Japan increased its agricultural imports from Vietnam by around 5.7 times compared to 1996, leading to a drop in its rank and remaining fifth. The top 10 trading partners accounted for over 70 percent of the agricultural export value of Vietnam during the studied period.

**Table 2. Top 10 countries ranked by Vietnam’s agricultural exports in 1996 and 2021**

Rank	1996			2021		
	Country	Value (Million US\$)	%	Country	Value (Million US\$)	%
1	USA	114.50	20.46	China	2361.24	30.28
2	Germany	72.77	13.00	USA	693.70	8.90
3	Japan	54.66	9.77	Germany	530.94	6.81
4	Hong Kong	41.47	7.41	India	498.40	6.39
5	China	34.21	6.11	Japan	311.97	4.00
6	France	30.66	5.48	Italy	272.84	3.50
7	Korea	29.47	5.27	Korea	258.45	3.31
8	United Kingdom	27.47	4.91	Russia	235.88	3.02
9	Italy	25.36	4.53	Thailand	178.66	2.29
10	Poland	20.89	3.73	Spain	163.81	2.10
	<b>Top 10</b>	<b>451.46</b>	<b>80.68</b>	<b>Top 10</b>	<b>5505.9</b>	<b>70.61</b>
	<b>Total</b>	<b>559.55</b>	<b>100.00</b>	<b>Total</b>	<b>7798.08</b>	<b>100.00</b>

Source: Author’s calculation using data from the BACI CEPII database

### 3.2. Regression results and discussions

This study applies PPML estimation for model (2) to discover the determinants of Vietnam’s agricultural exports and report the results in Table 3. The dependent variables are the value of Vietnam’s agricultural exports to each of its trading partners in thousands of US dollars.

As shown in Table 3, the exchange rate volatility variable, namely “*real\_d\_sd5*”,

has a negative and statistically significant coefficient. The results suggest that fluctuations in the exchange rate between VND and the currency of Vietnam’s trading partners harm agricultural exports of Vietnam. To be more specific, the estimated coefficient of the “*real\_d\_sd5*” variable is -0.299, implying that a 10 percent increase in bilateral real exchange rate volatility results in a 2.99 percent decrease in

bilateral agricultural exports of Vietnam. Indeed, exchange rate fluctuations create uncertainties for the exporters about their expected earnings in their own currencies. Also, exchange rate risks may lead to an increase in the sunk costs of exports [20]. The outcomes are in line with [21], [22], and [23], who note that the risks and uncertainty resulting from exchange rate fluctuations hamper agricultural exports in South Africa, Turkey, and Iran. Therefore, it is necessary to maintain stable exchange rates to increase the agricultural exports of Vietnam.

**Table 3. Determinants of agricultural exports of Vietnam, 1996-2021**

VARIABLES	Exp_agri
$\ln(ex\_vol)_{VN,j,t}$	-0.299*** (0.0355)
$\ln(pop)_{j,t}$	0.816*** (0.0185)
$\ln(gdpc)_{j,t}$	0.845*** (0.0419)
$\ln(dist)_{VN,j}$	-0.521*** (0.0266)
$RTA_{VN,j,t}$	0.118* (0.0673)
$CONTIG_{VN,j}$	0.199** (0.0981)
$COL_{VN,j}$	1.189*** (0.0972)
$POL_{j,t}$	0.128*** (0.0487)
$FINDEV_{j,t}$	1.590*** (0.153)
Constant	3.119*** (0.260)
Vietnam-year fixed effects	YES
Observations	3,461

Note: Robust standard errors in parentheses. \*, \*\*, and \*\*\* reflect statistical significance at the 10%, 5% and 1% level, respectively.

Let's turn our attention to some characteristics of Vietnam's trading partners. The coefficient of the population variable is positive and statistically significant at the 1% level, suggesting that the population of Vietnam's trading partners is positively associated with Vietnam's agricultural exports. In other words, if the population of an importing country increases, the demand for imported agricultural products also increases. More specifically, if the number of populations in its trading partner rises by 10 percent, the bilateral agricultural exports from Vietnam to that country will increase by 8.16 percent. These findings support the conclusion of [24], who reveals that the population of importing countries boosts Indonesian shrimp exports. Thus, countries with considerable economic sizes could be the potential partners of Vietnam's agricultural exports.

The GDP per capita also has a positive and significant coefficient, indicating that the per capita income of Vietnam's trading partners matters for its agricultural exports. As our expectation, if importing countries have higher income, they are more affordable for imported products to meet their local demand. The estimated coefficient is 0.845, implying that a 10 percent increase in the GDP per capita of an importing country would lead to an 8.45 percent increase in Vietnam's agricultural exports to that country. As a result, targeting at high income countries could be a solution to boost agricultural exports of Vietnam.

The regression results indicate that policy stability of Vietnam's trading partners positively influences its agricultural exports. This variable shows significance at the 1% level, with the estimated coefficient being

0.128. The result suggests that with other variables remaining unchanged, a 1 unit rise in the policy stability index of Vietnam's trading partner can enhance Vietnam's agricultural exports to that country by 12.8 percent. Indeed, risks and uncertainty can be reduced in countries with more stable political issues. Therefore, those countries are considered to be targeted markets for exporters. The empirical finding of this study is in line with [16], who discovers the significance of governance quality in boosting agricultural imports in Sub-Saharan Africa.

The estimated coefficient of the financial development variable is 1.59 and statistically significant at the 1% level. The result reveals that financial development in importing countries is another factor boosting Vietnam's agricultural exports. Higher levels of financial development in importing countries enable firms to easily borrow money at lower costs and reduce risks when implementing international sales contracts, thus increasing their chances of participating in international trade. This finding complements the literature on the effectiveness of financial development in enhancing international trade. While [19] and [25] indicate that financial development in exporting countries plays a crucial role in boosting exports, this study confirms that financial development in importing countries is also essential to increase exports of exporting countries. Thus, Vietnam's exporting firms may find their potential customers in countries with better financial development.

Turning to some conventional gravity control variables, the findings generally strengthen the basic theory of gravity model. The geographic distance is highly significant and has a negative coefficient. The estimated coefficient is -0.521, divulging that a 10 percent increase in geographic distance between Vietnam and a trading country should be accompanied by a 5.21 percent decrease in their bilateral trade. On the contrary, the coefficient of the "RTA" dummy variable is positively significant, with the estimated number being 0.118. The result reveals that simultaneously participating in regional trade agreements increases bilateral agricultural trade between two countries by 12.52 percent<sup>1</sup>. As expected, contiguous borders (CONTIG) and colonial ties (COL) enter with significant positive coefficients, which aligns with common wisdom. More specifically, sharing the same border between Vietnam and a trading partner will boost Vietnam's agricultural exports to that country by 22.02 percent<sup>2</sup>. Similarly, if Vietnam and a partner have ever a colonial or dependent relationship, the agricultural exports from Vietnam to that country can be raised by 228.38 percent<sup>3</sup>.

#### 4. Conclusions

This study employs a gravity model to investigate the determinants of Vietnam's agricultural exports, focusing on its trading partners' characteristics. The author performs empirical estimation by using the PPML estimators with a panel dataset covering bilateral agricultural exports from Vietnam to 187 of its trading partners from 1996 to 2021.

<sup>1</sup> $(e^{0.118}-1)*100 = 12.52$

<sup>2</sup> $(e^{0.199}-1)*100 = 22.02$

<sup>3</sup> $(e^{1.189}-1)*100 = 228.38$

The empirical results demonstrate that high volatility in the exchange rate between VND and the currencies of its trading partners hampers Vietnam's agricultural exports. When focusing on importers' characteristics, this study indicates that population, GDP per capita, policy stability, and financial development encourage agricultural exports of Vietnam. In addition, the author finds that geographical distance adversely influences bilateral trade, while regional trade agreements, shared borders, and colonial relationships in the past promote bilateral trade.

Given the crucial role of agriculture sectors in lowering poverty, providing jobs for over 30 percent of total labor, especially those in the countryside, and maintaining Vietnam's socioeconomic stability, it is necessary to have solutions to enhance Vietnam's agricultural exports. The empirical results of this study provide some important implications. First, maintaining stable exchange rates effectively boosts the agricultural exports of Vietnam. Second, actively joining regional trade agreements is important to increase the chances of bringing Vietnam's agricultural products to international markets. Last but not least, importing countries with considerable economic sizes, high GDP per capita, high levels of policy stability and financial development, or those who share a common border with Vietnam or have ever in dependent relationship with Vietnam, would be potential trading partners. Those findings are particularly crucial for exporting firms in choosing their trading partners to improve the performance of Vietnam's agricultural exports.

Although this study provides valuable insights about the determinants of Vietnam's agricultural exports, it has some limitations.

This study considers almost Vietnam's trading partners and all agricultural products, not focusing on any specific product or partner. Therefore, applying policy implications to a particular commodity or partner is challenging. Future studies could adopt the same approach to discover the drivers of exports of a specific agricultural product or focus on particular markets/regions. In addition, the BACI-CEPII database also provides data for bilateral trade of all manufacturing products. Thus, performing empirical analyses across multiple sectors is also a fascinating extension of this study.

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## CÁC YẾU TỐ TÁC ĐỘNG ĐẾN XUẤT KHẨU NÔNG SẢN VIỆT NAM, TẬP TRUNG VÀO CÁC ĐẶC ĐIỂM CỦA ĐỐI TÁC THƯƠNG MẠI

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### Tóm tắt

Nghiên cứu này phân tích các yếu tố tác động đến xuất khẩu nông sản của Việt Nam, tập trung vào đặc điểm của các đối tác thương mại. Tác giả sử dụng ước lượng PPML (Poisson pseudo-maximum likelihood) cho mô hình trọng lực trên bộ dữ liệu bảng gồm xuất khẩu nông sản từ Việt Nam đến 187 đối tác giai đoạn 1996-2021. Kết quả cho thấy biến động tỷ giá hối đoái và khoảng cách địa lý cản trở xuất khẩu, trong khi các hiệp định thương mại khu vực (RTA), chung biên giới và từng có quan hệ phụ thuộc lại thúc đẩy xuất khẩu. Khi xem xét đặc điểm của nước nhập khẩu, kết quả chỉ ra rằng dân số, GDP bình quân đầu người, ổn định về chính trị và phát triển tài chính thúc đẩy xuất khẩu nông sản của Việt Nam. Kết quả của nghiên cứu này hàm ý rằng cần phải duy trì tỷ giá hối đoái ổn định và tích cực tham gia các RTA để tăng xuất khẩu nông sản của Việt Nam. Ngoài ra, để tăng cường xuất khẩu nông sản, các doanh nghiệp xuất khẩu cần hướng tới các đối tác tại các nước có quy mô kinh tế lớn, thu nhập bình quân đầu người cao, chính trị ổn định, thị trường tài chính phát triển hoặc các nước có chung đường biên giới hoặc từng có quan hệ phụ thuộc với Việt Nam.

**Từ khóa:** *Xuất khẩu nông sản, Việt Nam, đặc điểm nước nhập khẩu, mô hình lực hấp dẫn.*