An analysis of factors influencing Vietnam's rice export to the ASEAN+3 countries

The Youth Team_GRA496_G1

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THE THESIS OUTLINE

INTRODUCTION

LITERATURE REVIEW

METHODOLOGY

ANALYSIS & FINDINGS

CONCLUSION & RECOMMENDATIONS

CHAPTER 1
INTRODUCTION

1.1. Background
1.2. Research objectives
1.3. Research questions
1.4. Research scope & methods

1.1. BACKGROUND

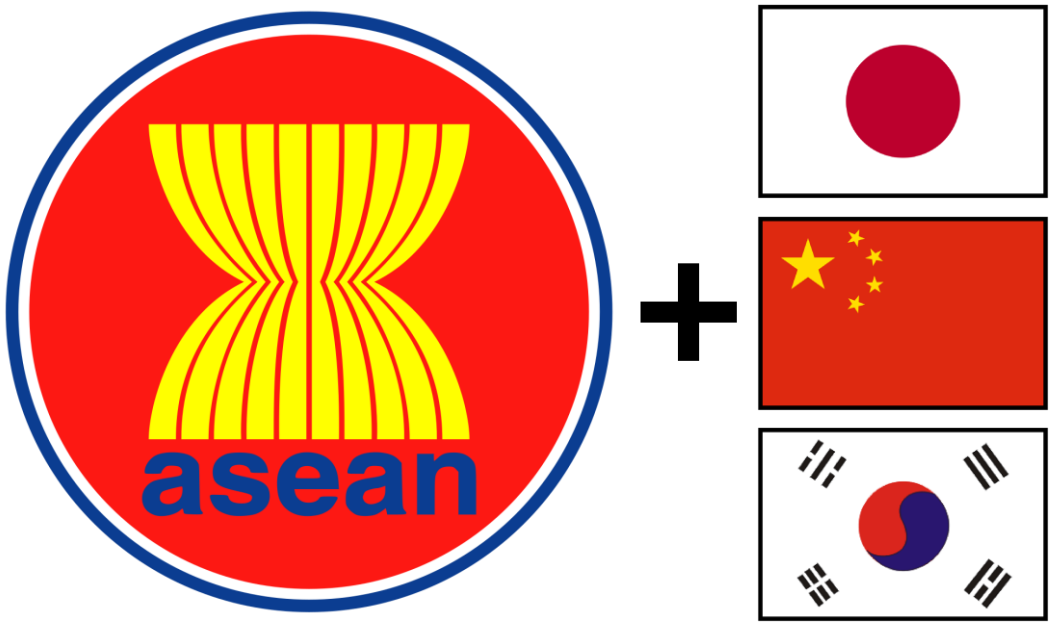
Favorable natural conditions and abundant labor resources

150 countries
30 years (2019)

Second-largest rice exporter (2020)

13%
7 months in 2020

1.1. BACKGROUND



ASEAN+3 is **one of the biggest markets** of Vietnam

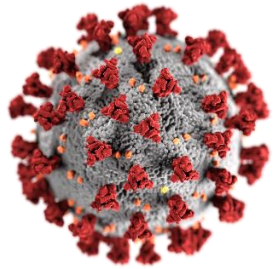
- Vietnam exported **2.8** million tons of rice ~ **44%** of total export output to ASEAN
- Japan, China, and South Korea are also the potential markets of Vietnam

⇨ Rice export is a vital industry in Vietnam's agricultural exports in the ASEAN+3 market

1.1. BACKGROUND

PROBLEMS

No previous research focused on ASEAN+3 nations



Countries imported rice more due to the COVID-19 pandemic

Topic: “An analysis of factors influencing Vietnam's rice export to the ASEAN+3 countries”

1.2. RESEARCH OBJECTIVES

01 Analyze the situation of Vietnam's rice exports to the ASEAN+3 market from 2005 to 2019

02 Identify factors affecting Vietnam’s rice exports to the ASEAN+3 market

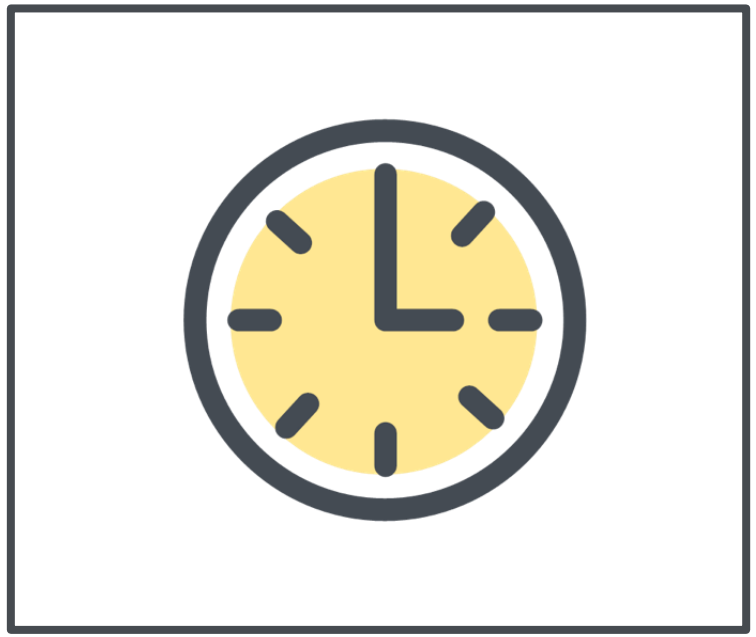
03 Analyze the impact of these factors on Vietnam’s rice exports to the ASEAN+3 market

04 Develop a system of solutions to boost Vietnam's rice exports to the ASEAN+3 market in the term of 2021-2030

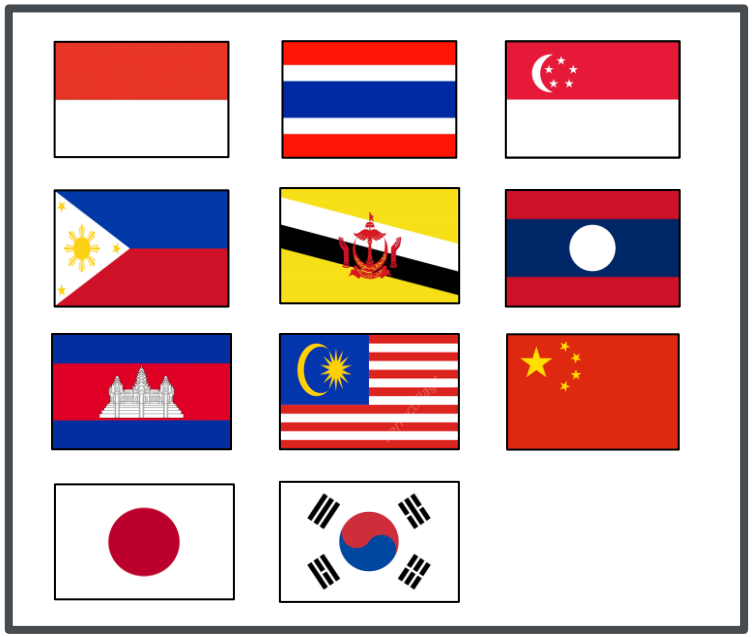
1.3. RESEARCH QUESTIONS

- What is the situation of rice production and export of Vietnam to the ASEAN+3 countries from 2005 to 2019?
- What are the main factors affecting Vietnam's rice exports to the ASEAN+3 countries?
- How are these factors correlated with Vietnam’s rice exports?
- How to boost Vietnam's rice export to the ASEAN+3 countries in 2021-2030?

1.4. RESEARCH SCOPE & METHODS



TIME
15 years: 2005-2019



MARKET
11 Countries

COMMODITY
HS Code: 1006

1.4. RESEARCH SCOPE & METHODS

QUANTITATIVE + QUALITATIVE

SECONDARY DATA

CHAPTER 2
LITERATURE REVIEW

2.1. Overview of rice export

2.2. General theories

2.3. Frameworks

2.4. Key recent studies

2.5. Proposed research model and hypothesis

2.1. OVERVIEW OF RICE EXPORT

The importance of rice export

- Meeting the physiological needs of humans
- Creating jobs for farmers workers, stabilizing social life
- Contributing to economic development

Characteristics of rice export

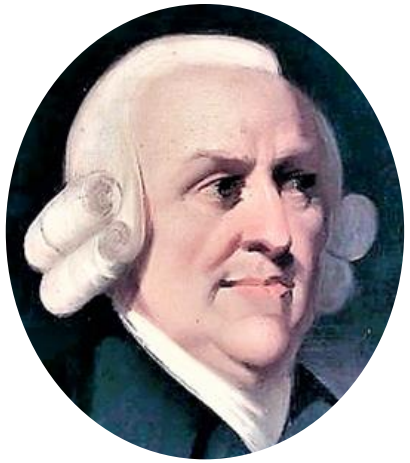
- Seasonality in trade
- Low elasticity of demand
- Dependence on natural conditions

2.2. GENERAL THEORIES

Mercantilism

Heckscher-Ohlin Model

Adam Smith's Theory



Absolute Advantage

David Ricardo’s Discovery

Comparative Advantage

Haberler's Theory

Opportunity Cost

2.3. FRAMEWORKS

THE GRAVITY MODEL

Formula:

$$EX_{ABt} = K*GDP_{At}^{\beta 1}*GDP_{Bt}^{\beta 2}*DIS_{AB}^{\beta 3}*\varepsilon$$

- Be the comprehensive investigation of factors affecting trade and international trade movement
- Have the flexibly forms of variables: quantitative & qualitative

2.3. FRAMEWORKS

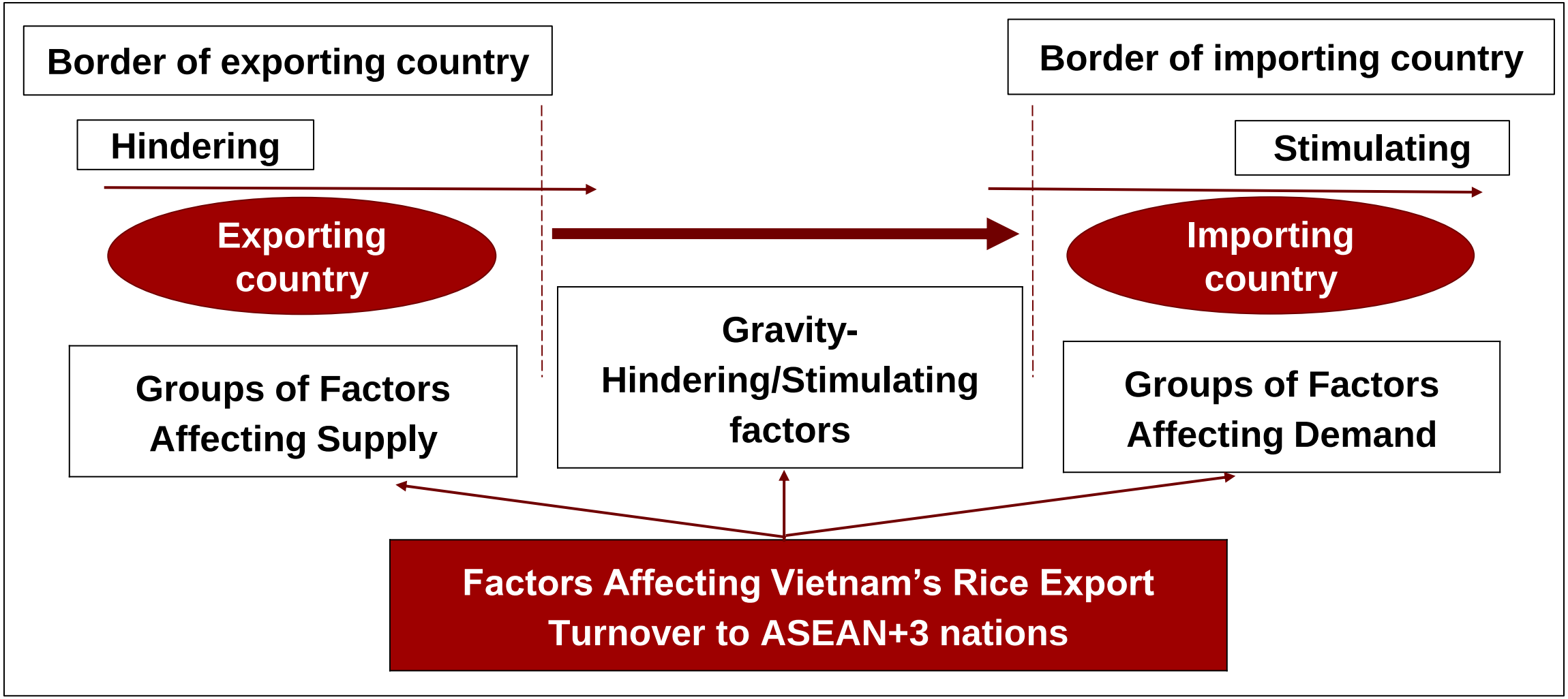


Figure 2.1. Factors affecting international trade (Tinbergen, 1962)

2.4. SOME KEY RECENT STUDIES

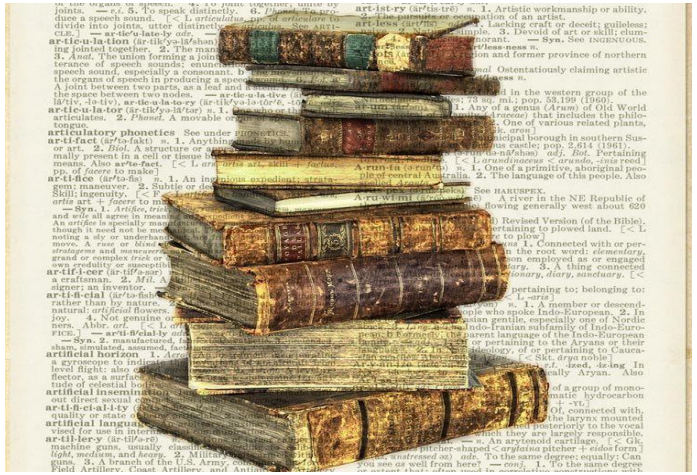
No.	References	Thesis title	Methods and Data	Findings
1	**Tho (2013)**	Determinants of Vietnam's exports: A gravity model approach	Gravity model, Pooled OLS, FEM, REM, Panel data between 2004 to 2008 on Vietnam's 61 importing countries	GDP of Vietnam (+), FDI of Vietnam (-), GDP per capita of importing country (-), Geographical distance (-), Real bilateral exchange rate (+), Free Trade Agreements (0)
2	**Yang and Martínez (2014)**	A panel data analysis of trade creation and trade diversion effects: The case of ASEAN–China Free Trade Area	Gravity model, Pooled OLS, FEM, REM, Panel data between 1995 to 2010	Geographical Distance (-), Population of both countries (0), GDP of Vietnam (+), GDP of importing countries (-)
3	**My (2016)**	Study on factors affecting the export of some agricultural products of Vietnam	Gravity model, Pooled OLS, FEM, REM, Panel data between 1997-2013	GDP of Vietnam (+), GDP of importing countries – rice commodities (-), Population of Vietnam * Population importers (+), Agricultural land (+), Inflation rate (+), Geographical distance (-), Economic gap (0), Opening level of economy (+), Participant of WTO, APEC (+)
4	**Bui and Chen (2017)**	An analysis of factors influencing rice export in Vietnam based on gravity model	Gravity model, Pooled OLS, FEM, REM, Panel data between 2004 -2013	GDP of Vietnam (0), GDP of importing countries (+), Geographical Distance (0), Exchange rate (-), The populations of importing countries price (+)
5	**Yen and Thao (2017)**	Factors affecting Vietnam's rice export to ASEAN market; results of analysis by gravity model	Gravity model, Pooled OLS, FEM, REM, Panel data between 2000-2015	GDP of Vietnam (+), Geographical Distance (+), Inflation rate of Vietnam (-), Harvesting area of Rice in Vietnam (+), Economic gap (-)

Table 2.1. Summary of key studies related to the thesis (Authors, 2020)

(+), (0), (-) indicate positive, no and negative correlation, respectively

2.4. SOME KEY RECENT STUDIES

LITERATURE GAP



Outdated data

Ignored the ASEAN+3 market

2.5. PROPOSED RESEARCH MODEL

$$EXP_{ijt} = A*GDPVN_{it}^{\beta 1}*LANDVN_{it}^{\beta 2}*INFVN_{it}^{\beta 3}*GDIS_{ij}^{\beta 4}*GDPIM_{jt}^{\beta 5}*POPIM_{jt}^{\beta 6}*ERIM_{jt}^{\beta 7}*WTO^{\beta 8}*u_{ijt}$$

$$\mathbf{lnEXP_{ijt} = A + \beta_1*lnGDPVN_{it} + \beta_2*lnLANDVN_{it} + \beta_3*lNFVN_{it} + \beta_4*lnGDIS_{ij} + \beta_5*lnGDPIM_{jt} + \beta_6*lnPOPIM_{jt} + \beta_7*lnERIM_{jt} + \beta_8*WTO + u_{ijt}}$$

In detail:

A is a constant

$\mathbf{u_{ijt}}$ is the standard random error

i: Vietnam

j: importing countries

t: year analysis

'The INFVN would not be transformed into ln to lesson the relative logarithm error'

2.5. PROPOSED RESEARCH MODEL

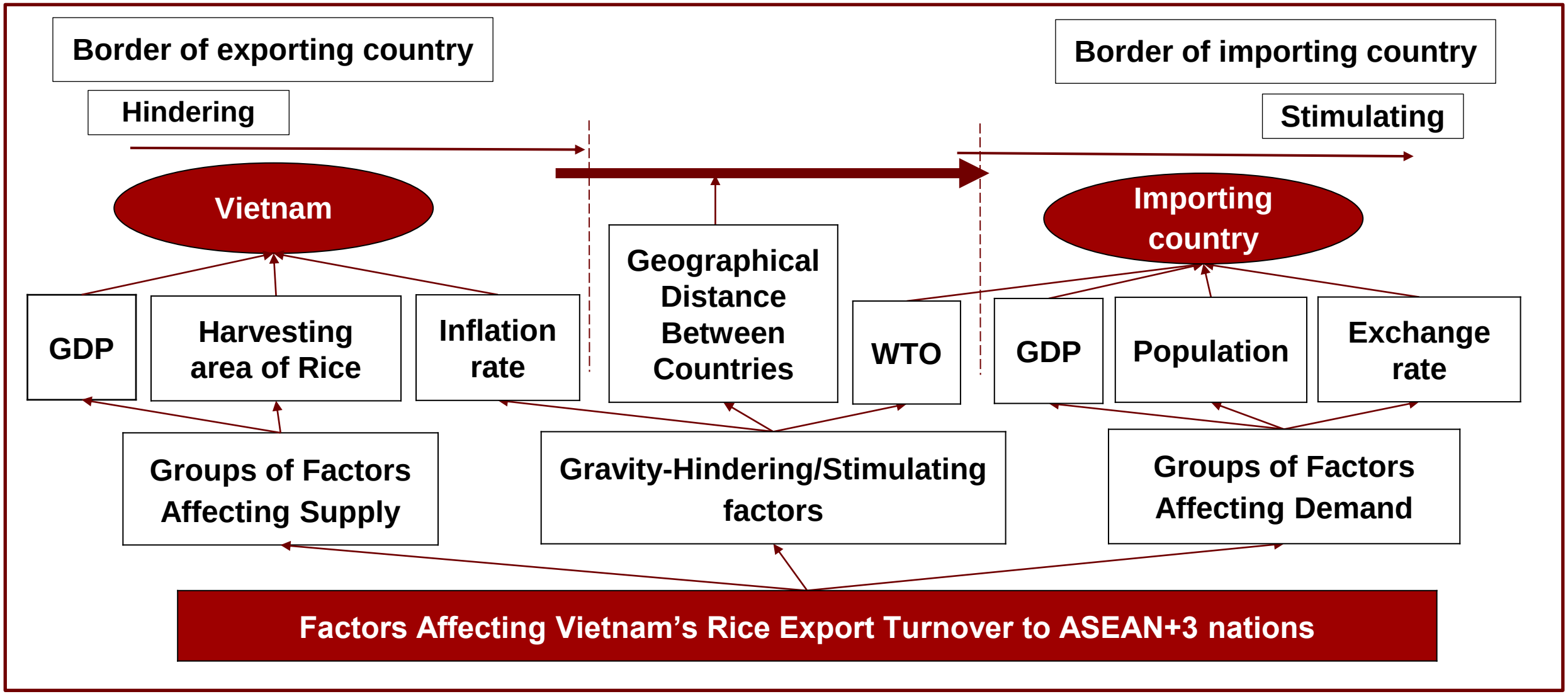


Figure 2.2. Factors affecting Vietnam's rice export turnover (Authors, 2020)

2.5. PROPOSED RESEARCH MODEL

Variables	Measurement Method	Expected signs
GDPVN	Vietnam's GDP (USD)	(+)
LANDVN	Total harvesting area of rice in Vietnam (thousand hectare)	(+)
INFVN	Measure the change of the consumer price index of a fixed basket of goods and services over time (%)	(-)
GDIS	The difference of distance between the capital of the rice importing country and Hanoi (km)	(-)
GDPIM	Importing country's GDP (USD)	(-)
POPIM	The population of importing country (people)	(+)
ERIM	The real exchange rate of foreign currency (USD) against the local currency (local currency unit - LCU/USD)	(-)
WTO	The dummy variable indicates whether or not the importing countries have joined the WTO in that year (Participating countries: 1, non-participating countries: 0)	(+)

Table 2.2. Summary of variables and expected signs (Authors, 2020)

(+), (-) indicate positive and negative correlation, respectively

CHAPTER 3
METHODOLOGY

3.1. Introduction

3.2. Data collection methods

3.3. Data analysis method

3.4. Detections for the regression model

3.1. INTRODUCTION

Research Philosophy

Research Approach

- Common with natural sciences
- A highly-structured approach
- Select samples of sufficient size to generalize the conclusion

3.2. DATA COLLECTION METHODS

Gathering secondary data with **3** force features:

- **Reliability**
- **Suitability**
- **Adequacy**

Variables	Data sources
EXP	UN Comtrade
GDPVN	World Bank
LANDVN	General Statistics Office of Vietnam
INFVN	World Bank
GDIS	Website: https://www.timeanddate.com
GDPIM	World Bank
POPIM	World Bank
ERIM	World Bank
WTO	Website: https://www.wto.org
Qualitative Variables	The World Bank (WB), General Statistics Office, USDA, UN Comtrade, IMF, FAO, several reputable journals,…

Table 3.1. Variable's data source details (Authors, 2020)

3.3. DATA ANALYSIS METHODS

DATA ANALYSIS

1. **Descriptive statistic**
2. **Pearson's correlation coefficient**
3. **Multiple regression model**
   - Pooled Ordinary Least Square (Pooled OLS)
   - Random Effect Model (REM)
   - Fixed Effect Model (FEM)
4. **Breusch-Pagan Lagrange Test**
   - Pooled OLS or REM
     Choose REM
     if P-value < 0.05
5. **Hausman Test**
   - FEM or REM
     Choose FEM
     if P-value < 0.05

SOFTWARE FOR STATISTICS

3.4. DETECTIONS FOR THE REGRESSION MODEL

1	2	3
Detection for Multicollinearity	**Detection for Autocorrelation**	**Detection for Heteroskedasticity**
VIF Test	Wooldridge Test	The Breusch - Pagan Lagrange Multiplier Test

Feasible **G**eneralized **L**east **S**quare **(FGLS)** is the best method when **T>N** (Hoechle, 2007)

CHAPTER 4
ANALYSIS & FINDINGS

4.1. Overview of ASEAN+3 countries

4.2. An analysis of factors influencing rice export

4.2.1. Quantitative

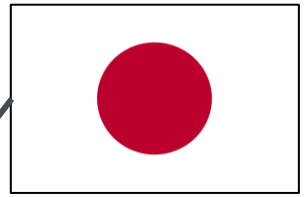
4.2.2. Qualitative

4.1. OVERVIEW OF ASEAN+3 COUNTRIES

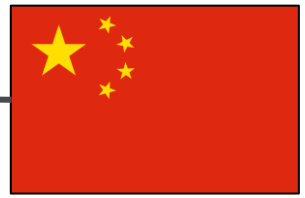
In 2000, ASEAN+3 was officially launched

AGREEMENTS AND INITIATIVES

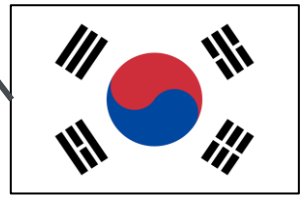
ASEAN



AJCEP



ACFTA



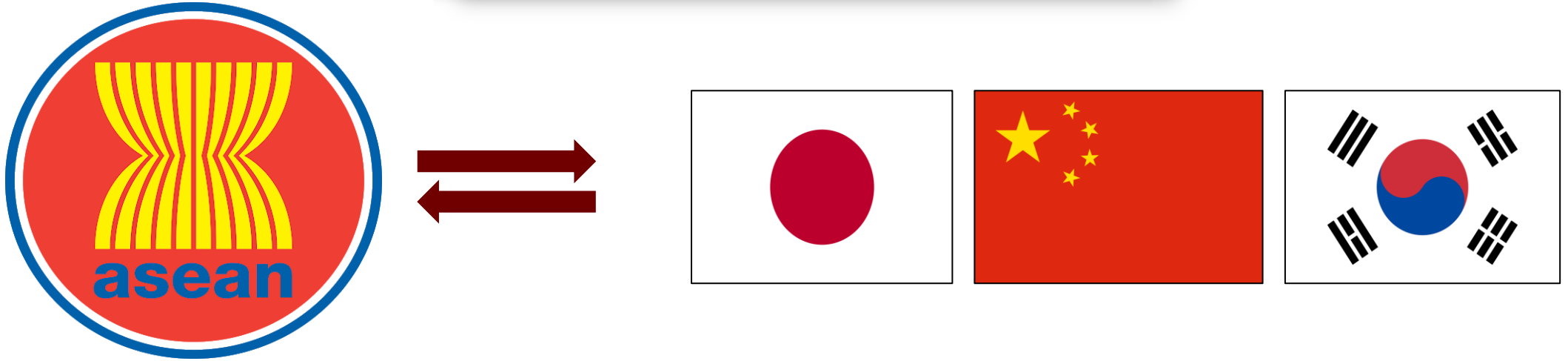
AKFTA

ASEAN Economic Community

ATIGA

4.1. OVERVIEW OF ASEAN+3 COUNTRIES

POSITIVE SIGNALS



6.8%

Increased in 2018

$B 869.1

Merchandise trade in 2018

4.1. OVERVIEW OF ASEAN+3 COUNTRIES

Vietnam's rice export turnover to the ASEAN+3 countries

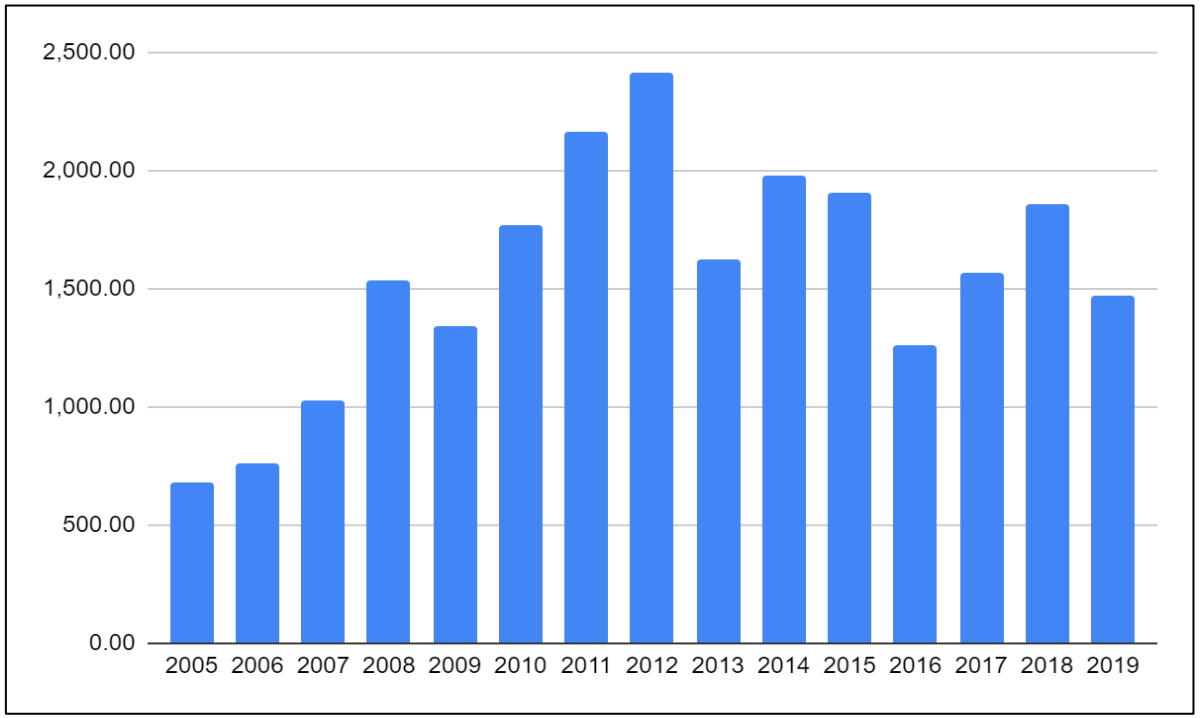
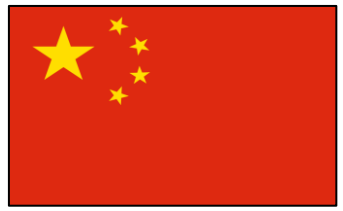


Chart 4.1. Vietnam's rice export turnover to the ASEAN+3 countries from 2005 to 2019 (Unit: million USD) (UN Comtrade, 2020)

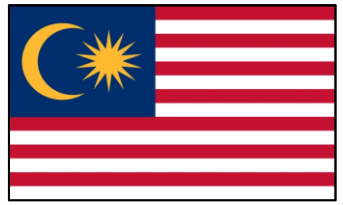
Top rice importing countries of Vietnam

35.9%



28.1%

14.6%



13.8%

4.2. ANALYSIS OF FACTORS INFLUENCING RICE EXPORT

4.2.1. Quantitative

4.2.2. Qualitative

4.2.1. Quantitative

ESTIMATION MODEL

$$\ln EXP_{ijt} = A + \beta_1 * \ln GDPVN_{it} + \beta_2 * \ln LANDVN_{it} + \beta_3 * INFVN_{it} +$$

$$\beta_4 * \ln GDIS_{ij} + \beta_5 * \ln GDPIM_{jt} + \beta_6 * \ln POPIM_{jt} + \beta_7 * \ln ERIM_{jt} + \beta_8 * WTO + u_{ijt}$$

4.2.1. Quantitative

DESCRIPTIVE STATISTICS

Variable	Obs	Mean	Std. Dev	Min	Max
lnEXP	161	15.95	3.43	6.497	20.89
lnGDPVN	165	25.66	0.47	24.78	26.29
lnLANDVN	165	8.93	0.03	8.87	8.97
INFVN	165	7.65	5.86	0.63	23.12
lnGDIS	165	7.48	0.56	6.18	8.21
lnGDPIM	165	26.27	2.22	21.73	30.29
lnPOPIM	165	17.35	2.09	12.81	21.05
lnERIM	165	4.5	3.28	0.22	9.56
WTO	165	0.95	0.22	0	1

Table 4.1. Descriptive statistics (Stata 14.0 results, 2020)

4.2.1. Quantitative

PEARSON'S CORRELATION COEFFICIENT

(obs=165)

	GDPVN	LANDVN	INFVN	GDIS	POPIM	ERIM	GDPIM	WTO
GDPVN	1.0000							
LANDVN	0.7166	1.0000						
INFVN	-0.4678	-0.3134	1.0000					
GDIS	-0.0000	-0.0000	0.0000	1.0000				
POPIM	0.0229	0.0155	-0.0121	0.3352	1.0000			
ERIM	-0.0027	-0.0083	-0.0079	-0.3084	0.2130	1.0000		
GDPIM	0.1445	0.1089	-0.0561	0.7051	0.7937	-0.1748	1.0000	
WTO	0.1762	0.1366	-0.1433	0.5254	0.1873	-0.3169	0.3923	1.0000

Figure 4.1. Pearson's correlation coefficient (Stata 14.0 results, 2020)

4.2.1. Quantitative

BREUSCH AND PAGAN LAGRANGIAN MULTIPLIER TEST

```
Breusch and Pagan Lagrangian multiplier test for random effects

        EXP[COUNTRY,t] = Xb + u[COUNTRY] + e[COUNTRY,t]

        Estimated results:
                         |       Var      sd = sqrt(Var)
                ---------+------------------------------
                     EXP |   11.77944        3.432119
                       e |   3.096903        1.759802
                       u |    .255373        .5053444

        Test:    Var(u) = 0
                                 chibar2(01) =    178.73
                              Prob > chibar2 =    0.0000
```

P-value < 0.05

Pooled OLS **REM**

Figure 4.2. Multiple regression analysis (Stata 14.0 results, 2020)

4.2.1. Quantitative

HAUSMAN TEST

	Coefficients (b) fe	(B) re	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
GDPVN	-.0666345	1.571382	-1.638017	.5199608
LANDVN	10.67264	14.42744	-3.754801	.
INFVN	-.0109567	.010626	-.0215827	.
POPIM	-7.822295	1.413742	-9.236036	5.243503
ERIM	.7843703	-.5643023	1.348673	1.71692
GDPIM	2.463557	-1.306317	3.769874	.8121106
WTO	-2.912415	-2.937295	.0248801	.

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

chi2(7) = (b-B)'[(V_b-V_B)^(-1)](b-B)
= 10.17
Prob>chi2 = 0.1793
(V_b-V_B is not positive definite)

P-value > 0.05

FEM

REM

Figure 4.3. Hausman Test (Stata 14.0 results, 2020)

4.2.1. Quantitative

Random-effects GLS regression — Number of obs = 161
Group variable: COUNTRY — Number of groups = 11

R-sq:
within = 0.0729
between = 0.6321
overall = 0.4645

Obs per group:
min = 13
avg = 14.6
max = 15

Wald chi2(8) = 83.49
corr(u_i, X) = 0 (assumed) — Prob > chi2 = 0.0000

EXP	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
GDPVN	1.571382	.6164949	2.55	0.011	.3630744	2.77969
LANDVN	14.42744	9.174967	1.57	0.116	-3.555165	32.41004
INFVN	.010626	.0339942	0.31	0.755	-.0560013	.0772533
GDIS	4.039121	.7956038	5.08	0.000	2.479766	5.598476
POPIM	1.413742	.2923436	4.84	0.000	.8407587	1.986724
ERIM	-.5643023	.1004399	-5.62	0.000	-.7611609	-.3674437
GDPIM	-1.306317	.3460066	-3.78	0.000	-1.984477	-.6281562
WTO	-2.937295	1.084941	-2.71	0.007	-5.06374	-.8108503
_cons	-168.4748	73.4661	-2.29	0.022	-312.4657	-24.48391
sigma_u	.5053444					
sigma_e	1.759802					
rho	.07617898	(fraction of variance due to u_i)				

REM

46.45% explanatory of the independent variables over the dependent variable

Figure 4.4. REM Analysis

(Stata 14.0 results, 2020)

4.2.1. Quantitative

Detection for Multicollinearity

Variable	VIF	1/VIF
GDPIM	9.42	0.106135
POPIM	5.79	0.172821
GDIS	3.46	0.288881
GDPVN	2.54	0.393900
LANDVN	2.04	0.491227
ERIM	1.70	0.587157
WTO	1.56	0.640019
INFVN	1.31	0.765723
Mean VIF	3.48	

Figure 4.5. Detection for REM - Multicollinearity

(Stata 14.0 results, 2020)

Detection for Autocorrelation

```
Wooldridge test for autocorrelation in panel data
H0: no first order autocorrelation
    F(  1,      10) =      4.131
          Prob > F =      0.0695
```

Figure 4.6. Detection for REM – Autocorrelation

(Stata 14.0 results, 2020)

4.2.1. Quantitative

Detection for Heteroskedasticity

```
Breusch and Pagan Lagrangian multiplier test for random effects

        EXP[COUNTRY,t] = Xb + u[COUNTRY] + e[COUNTRY,t]

        Estimated results:
                         |       Var      sd = sqrt(Var)
                ---------+------------------------------
                     EXP |   11.77944        3.432119
                       e |   3.096903        1.759802
                       u |    .255373        .5053444

        Test:    Var(u) = 0
                                 chibar2(01) =    178.73
                              Prob > chibar2 =    0.0000
```

Figure 4.7. Detection for REM – Heteroskedasticity

(Stata 14.0 results, 2020)

4.2.1. Quantitative

Cross-sectional time-series FGLS regression

Coefficients: generalized least squares
Panels: heteroskedastic
Correlation: no autocorrelation

Estimated covariances	=	11	
Estimated autocorrelations	=	0	
Estimated coefficients	=	9	
Number of obs	=	161	
Number of groups	=	11	
Obs per group:			
min	=	13	
avg	=	14.63636	
max	=	15	
Wald chi2(8)	=	191.63	
Prob > chi2	=	0.0000	

EXP	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
GDPVN	1.746459	.5630554	3.10	0.002	.6428909	2.850027
LANDVN	16.24153	8.574869	1.89	0.058	-.56491	33.04796
INFVN	.0077231	.0315482	0.24	0.807	-.0541102	.0695565
GDIS	5.429039	.5984938	9.07	0.000	4.256013	6.602065
POPIM	1.727149	.2082355	8.29	0.000	1.319015	2.135283
ERIM	-.6013675	.0663877	-9.06	0.000	-.731485	-.4712501
GDPIM	-1.655405	.2601564	-6.36	0.000	-2.165302	-1.145508
WTO	-4.862535	1.27322	-3.82	0.000	-7.358	-2.36707
_cons	-193.5071	68.50625	-2.82	0.005	-327.7769	-59.23732

Feasible Generalized Least Square Model

Figure 4.8. Feasible Generalized Least Square (Stata 14.0 results, 2020)

4.2.1. Quantitative

THE FINAL MODEL

$$lnEXP_{ijt} = -193.51 + 1.746*lnGDPVN_{it} + 16.241*lnLANDVN_{it} + 5.429*lnGDIS_{ij} - 1.655*lnGDPIM_{jt} + 1.727*lnPOPIM_{jt} - 0.601*lnERIM_{jt} - 4.863*WTO$$

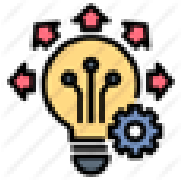
⇨ The final results above are relatively consistent with theory and practice in Vietnam during the given period

4.2.2. Qualitative

Government policies

Technology

Quality and price of exported rice



Infrastructure

Quality of labor resources

Tariff and non-tariff factors from importing countries

4.2.2.1. Government policies

Policy on conditions for rice exporting enterprise

PURPOSE:

Enhancing the competitiveness of Vietnamese rice exporter

RESULT:

Many enterprises missed opportunity

Policy on rice export quota & export tariff

PURPOSE:

Ensure the national food security

RESULT:

- Farmer had to sell a lower price
- The Government did not earn much revenue

4.2.2.1. Government policies

Policy on develop paddy land and credit supporting

PURPOSE:

- Enhancing the productions of business
- Supporting for poverty households

RESULT:

- Harvested **~20.2** million tons
- Mekong Delta: **~10.8** million tons

LIMITATIONS:

Vietnam's rice cultivation area has still been decreasing due to industrialization, urbanization, and population growth

4.2.2.1. Government policies

During the Covid-19 pandemic

Decision No. 1106/QD-BCT

Adopting a temporary rice export quota of **400,000 tons** (removal in May, 2020)

4.2.2.2. Quality and price

Quality of exported rice

- Low-quality rice varieties compared to Thailand and India
- Poor supply chain management

Figure 4.9. Purchasing – Exporting model – Vietnam's Rice Export Supply Chain (Hung et al., 2019)

- Climate change

4.2.2.2. Quality and price

Improve gradually following international standards such as: GlobalGAP, SRP,…

Ho Quang Cua
Father of ST25 rice

The characteristics of ST25 rice

- Has a disease prevention and salt resistance
- Can be grown from two to three crops a year

ST25 rice was the winner in “The best rice in the world” competition 2019

4.2.2.2. Quality and price

Price of exported rice

The reason for a low export rice

- Have the low-quality of Vietnam's rice
- Have not created a good branding strategy

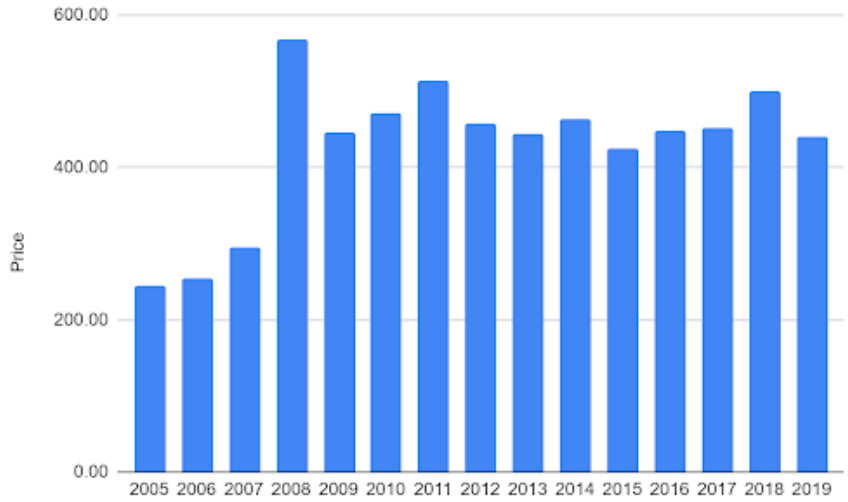


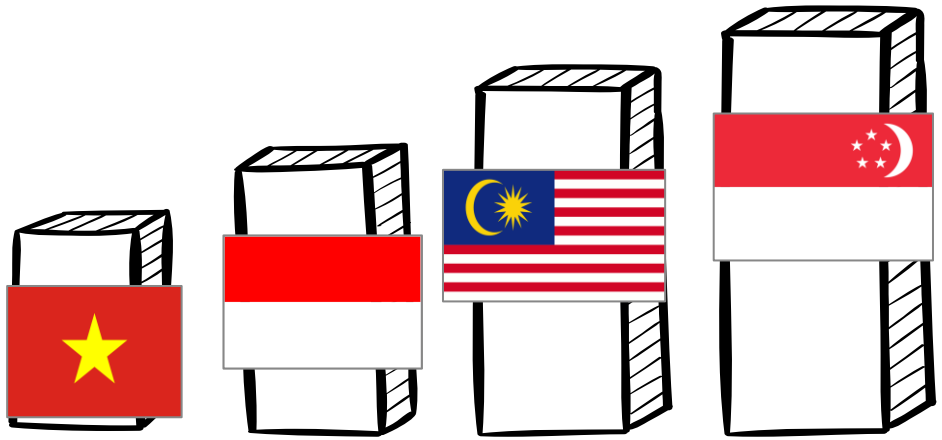
Chart 4.2. Vietnam's rice export prices, 2005-2019 (Unit: USD/tons) (USDA, 2020)

Figure 4.10. Vietnam rice logo (Ministry of Agriculture and Rural Development, 2018)

- In 2020, Vietnam's rice price raise 15-20 USD/ton, higher than Thai rice

4.2.2.3. Quality of labor resources

Vietnam's labor productivity is **LOW** compared to other countries



To improve farmer practice:

- The Vietnam Sustainable Agriculture Transformation Project (VnSAT): 5S (sort, set, shine, standardize and sustain)
- The Japan International Cooperation Agency (JICA): Kaizen

4.2.2.4. Technology

Agricultural mechanization

ACHIEVEMENTS:

- Laser field leveling in Can Tho
- 600 thousand tractors to serve farmers' demands

LIMITATIONS:

- Rice cultivation mechanization has not changed severely
- Vietnam has a fragile competitiveness

Changes in biotechnology

- The application of biotechnology in fertilizers and pesticides
- The innovation of genetically modified rice (ST25)

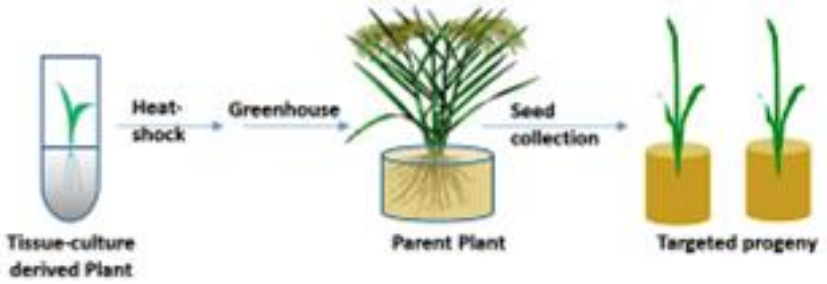


Figure 4.11. The application of the CRSPR/Cas system on the stem cells of the mother plant and passed onto offspring (Le et al., 2019)

4.2.2.5. Infrastructure

Irrigation systems

Vietnam had built **904** irrigation systems serving irrigation and drainage of **200** ha

Transportation system and export rice supply chain

ACHIEVEMENTS:

Various traffic works, transport stations, warehouses, wharves were built and completed

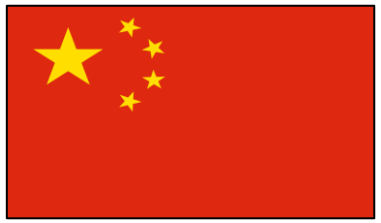
LIMITATION:

Lack of connection between important seaport and railways or highways

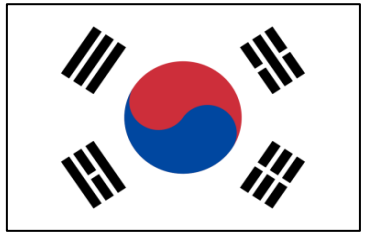
4.2.2.6. Tariff and non-tariff factors

Import tariff incentives

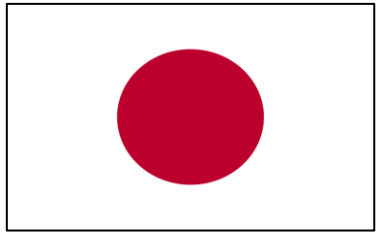
ASEAN



ACFTA



VKFTA



VJEPA

Key threats

Japan and Korea

put the export quota

Fierce competition

Thailand, Cambodia,…

Vietnam has not been listed much

in preferential lists of importers

4.2.2.6. Tariff and non-tariff factors

Key non-tariff barriers

- Quantitative restrictions
- Technical measures
- Temporary trade protection measure

The returned contracts from Korean and the recent restriction of China on packaging

Vietnam rice packing

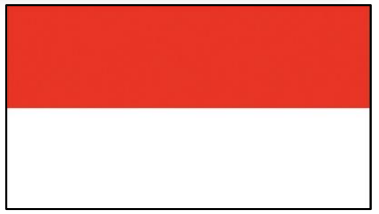
vs

Thailand rice packing

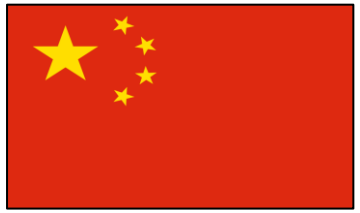
4.2.2.6. Tariff and non-tariff factors

Key non-tariff barriers

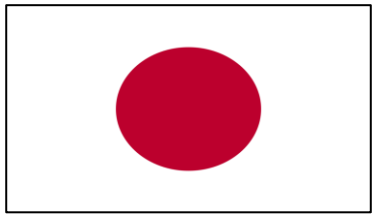
- A new food safety management system in 2019



- The compulsory use of Indonesia companies' ocean shipping and insurance service



- Ensure the regulations such as sterilization time
- Require the test sample under the Chinese base for testing
- Have a list of 22 enterprises permitting to export rice to China



- Technical Barriers in Trade (TBT)
- Sanitary and Phytosanitary (SPS)
- Japanese Agricultural Standard (JAS)

CHAPTER 5
CONCLUSION AND RECOMMENDATIONS

5.1. Summary of findings

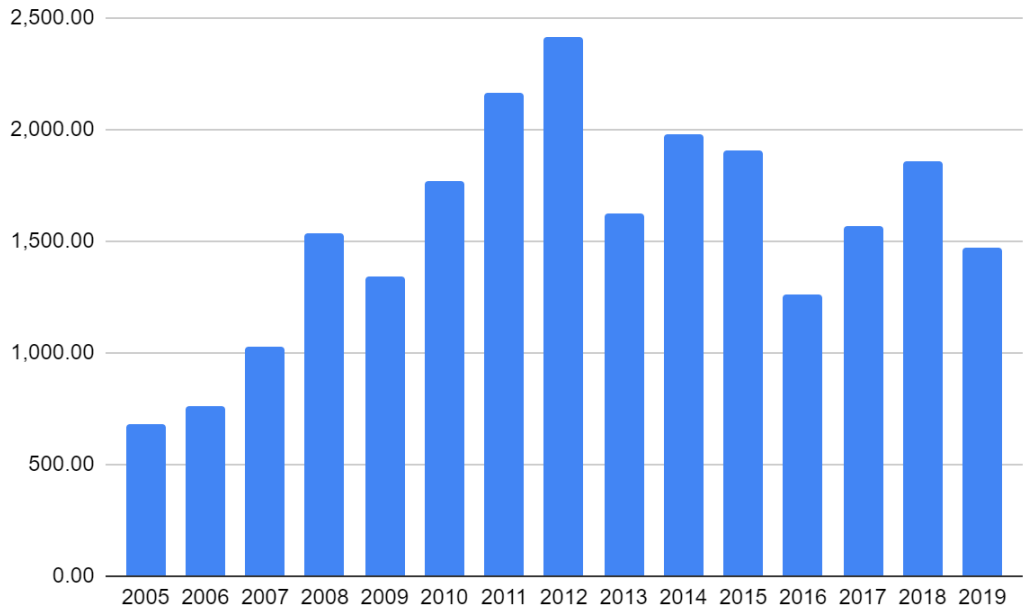
5.2. Vietnam’s rice export target to 2030

5.3. Recommendations

5.4. Limitations and conclusion

5.1. SUMMARY OF FINDINGS

Question 1: What is the situation of rice production and export of Vietnam to ASEAN+3 countries in the period of 2005 - 2019?



Vietnam’s rice export turnover to the ASEAN+3 market generally increased but fluctuated sharply from 2005 to 2019. The detailed analysis is in Chapter 4

5.1. SUMMARY OF FINDINGS

Question 2: What are the main factors affecting Vietnam's rice exports to ASEAN+3 countries?

07

Quantitative determinants

06

Qualitative determinants

5.1. SUMMARY OF FINDINGS

Question 3: How are these factors correlated with Vietnam's rice export to ASEAN+3 countries?

Hypothesis	Results	P-value	Coefficient
H1: GDP of Vietnam has a positive correlation with Vietnam's rice exports (+)	**Accepted**	0.002	+1.746
H2: Harvesting area of rice in Vietnam is positively associated with Vietnam's rice exports (+)	**Accepted**	0.058	+16.241
H3: Inflation negatively correlates with Vietnam's rice exports (-)	Rejected	0.807	
H4: The geographical distance is negatively correlated with Vietnam's rice exports (-)	Rejected	0.000	+5.429

5.1. SUMMARY OF FINDINGS

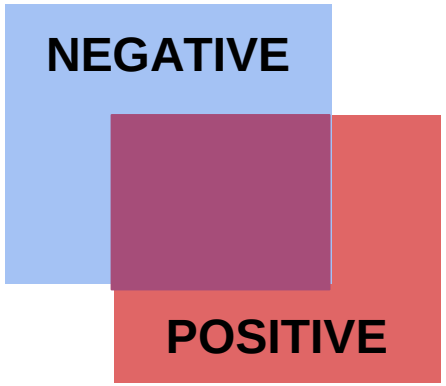
Question 3: How are these factors correlated with Vietnam's rice export to ASEAN+3 countries? (cont.)

Hypothesis	Results	P-value	Coefficient
H5: GDP of importing country is negatively correlated with Vietnam's rice exports (-)	**Accepted**	0.000	-1.655
H6: Importing country's population has a positive association with Vietnam's rice exports (+)	**Accepted**	0.000	+1.727
H7: Exchange rate of importing country is negatively correlated with Vietnam's rice exports (-)	**Accepted**	0.000	-0.601
H8: WTO is positively correlated with Vietnam's rice exports (+)	Rejected	0.005	-4.863

5.1. SUMMARY OF FINDINGS

Question 3: How are these factors correlated with Vietnam's rice export to ASEAN+3 countries? (cont.)

Qualitative factors



Government policies

Infrastructure

Technology

Quality and price of exported rice

Quality of labor source

Tariff and non-tariff factors

5.1. SUMMARY OF FINDINGS

Question 4: How to boost Vietnam's rice export to ASEAN+3 countries in the term of 2021-2030?

The answer will be presented in the following part

5.2. VIETNAM'S RICE EXPORT TARGET TO 2030

Overall objectives

- Improving the quality
- Increasing the value
- Restructuring products to meet the needs of the global market

Particular objectives

- Reaching 4 million tons of annual export by 2030
- Rising to 2.3 – 2.5 billion USD of export value per year

5.3. RECOMMENDATIONS

5.3.1. Improving the GDP

5.3.2. Exploiting rice land efficiency

5.3.3. Promoting smart strategies

5.3.4. Limiting the risks of importers' exchange rate

5.3.5. Boosting the quality and strengthening the brand

5.3.6. Promulgating suitable policies

5.3.7. Building high quality human resources

5.3.8. Enhancing the application of technology

5.3.9. Upgrading the infrastructure system

5.3.10. Optimizing FTAs and overcoming barriers

5.3.1. Improving the GDP and Vietnamese's living standard

Vietnam can raise GDP by

- Stabilizing macroeconomic growth
- Maintaining stable politics
- Expelling obstacles for enterprises

5.3.2. Exploiting the rice land utilization efficiency

- Hardening the area of rice-growing land and annual food production
- Zoning rice harvesting areas into specialized rice areas
- Doing thorough studies on the soil
- Having intensive measures and suitable crop conversion policies

Centralized rice cultivation

Inter-regional rice cultivation

Doing research on the soil

Having intensive measures

5.3.3. Promoting smart strategies in some special markets

Nations with unfavorable natural conditions

- Building credibility in international trade with customers

Rikolto rice market development program

- Producing rice according to orders from partners

Nations with large populations

- Enhancing the role of collecting data and information related to rice markets in these nations

Conducting updated studies

Providing reliable information

Being more proactive

- Establishing a network of relationships with Vietnamese businesses in these populous importing countries

5.3.4. Limiting the risks of importers' exchange rate

Focusing on exchange rate forecasting

Paying attention to the world's political and economic situations

Increasing the national foreign exchange reserves fund

Selecting other foreign currencies to use in rice export contracts

Actively coordinating with commercial banks

5.3.5. Boosting the quality and strengthening the sustainable brand

Developing a national standard system for exported rice products and processes

Registering trademark protection for kinds of high-quality rice

Focusing on traceability, hygiene, and food safety

Developing and implementing a joint cooperation plan between trade promotion agencies and enterprises

5.3.6. Promulgating policies to ensure benefits for farmers and enterprises

- Policy on controlling the volume of rice export
- Policy on enhancing the supply chain and value chain of rice export
- Policy on credit support for rice producers
- Policy on supporting export enterprises to enter the new market

5.3.7. Building high quality human resources

Organizing training programs on knowledge

Strengthening the connection between labor force training and enterprise

Adding the system of agricultural officials to support farmers

Building periodic training, inspection of the labor force and technical staff quality

5.3.8. Enhancing the application of technology

Researching advanced models of crop cultivation and new disease-resistant rice varieties

Exploring new markets through e-commerce sites

Making use of rice production waste

5.3.9. Upgrading the infrastructure system

Developing the system of transport and logistics effectively

Having specific strategies in the maintenance of infrastructure

5.3.10. Optimizing FTAs and efficiently overcoming non-tariff barriers

Optimizing FTAs

Promoting relationships with partners in the ASEAN+3

Overcoming non-tariff barriers

- Updating intensive information related to FTAs
- Helping farmers have a better understanding of non-tariff barriers issues

➡ Strengthening the relationship among *Government, associations, entrepreneurs, farmers*

5.4. LIMITATIONS AND CONCLUSION

Limitations

Time constraint
only 4 months

Inaccessible data
and observations size

This study

- Examining the factors affecting the situation of Vietnam's rice export in the ASEAN+3 market from 2005 to 2019
- Providing recommendations for sustainable development
- Being a reference document for future research

Conclusion

THANK YOU FOR LISTENING!