

THE ASSESSMENT OF FACTORS AFFECTING THE EXPORT RICE INDUSTRY IN MEKONG DELTA INTO THE TRANS-PACIFIC PARTNERSHIP (TPP)

Pro Dr. Tran Van Chu¹, Dr. Dang Thi Bich Loan²

1. President of Vietnam National University of Forestry (VNUF)
2. Lecturer of VNUF

The main objective of this paper is to identify all the main factors that related the export rice industry in Mekong Delta Vietnam. The researchers had used analytical method of explore factor analysis to determining factors that are components of export rice industry theory. This paper conducted during the period from December 2015 to June 2016. Besides, the research results showed that there were 400 persons (200 farmers and 200 exporters) who interviewed and answered about 27 questions in Mekong Delta. The researcher had analyzed Cronbach's Alpha test, the result of KMO analysis used for multiple regression analysis, the person responses measured through an adapted questionnaire on a 5-point Likert scale and hard copy.

The regression analysis results showed that there were seven factors, which included of factors following: Development strategy; Control policy; Planning; Support policy; Rice seeds; Cultivation techniques and Post-harvest processing actually affected the export rice industry with 5 % significance level. In addition, the research result processed from SPSS 20.0 software. At the same time, the result was also a scientific evidence and important for researchers, and policy makers who apply them for improving policy on the export rice industry.

Keywords: Export, Rice industry, Mekong Delta, Vietnam and VNUF

INTRODUCTION

Vietnam became a member of the World Trade Organization (WTO) and The Trans-Pacific Partnership (TPP). Vietnam's international trade grew rapidly, especially after Vietnam became a member of the World Trade Organization (WTO). According to the Vietnam Food Association, based on the amount of inventory (400,000 tones 300.000- often) and orders to delivery in the first quarter/2016 (1.2 million tons), the forecast would have required businesses to buy rice farmers with high prices for export.

Vietnam Food Association (VFA) said May 6-2016 only 380,000 tones of rice exports, down nearly 40% compared to the same period of 2015. In the previous two months, rice exports have declined. As of the second quarter/2016, Vietnam exported 1.232 million tons, down 32% compared to the same period of 2015.

Experts said that the market is large demand for aromatic rice, even the Chinese market easygoing capital began this popular premium rice lines. Therefore, urgent job now is to control residues of plant protection products to be able to take advantage of the potential markets in TPP (Agreement on the Trans-Pacific Partnership) as the US. To achieve this, organizations must produce the chain, the link with farmers and cooperatives; even if self-employed businesses will disperse resources.

Rice prices will continue to stand at that height in the near future as demand is increasing. The price won't fall because demand is very strong, and also because farmers are facing high production costs for fertilizer, gasoline and others. Despite the start of the harvest season in the Mekong Delta region, high global demand continues to push prices of exportable rice higher in the local market. Most of Vietnam's rice for export is grown in the Mekong Delta region. Vietnam is facing this situation and the mentioned things, which requires Vietnam to constantly improve and develop rice export. That is why the researcher chose topics. *“The assessment of factors affecting the export rice industry in Mekong Delta into the Trans-Pacific Partnership (TPP)”* research and make this field of study.

LITERATURE REVIEW

Some theories of export of United States following:

The term export means shipping the goods and services out of the port of a country. The seller of such goods and services is referred to as an "exporter" and is based in the country of export whereas the overseas based buyer is referred to as an "importer". In international trade, "exports" refers to selling goods and services produced in the home country to other markets.

Export of commercial quantities of goods normally requires involvement of the customs authorities in both the country of export and the country of import. The advent of small trades over the internet such as through Amazon and eBay have largely bypassed the involvement of Customs in many countries because of the low individual values of these trades. Citation needed Nonetheless, these small exports are still subject to legal restrictions applied by the country of export. An export's counterpart is an import.

History: The theory of international trade and commercial policy is one of the oldest branches of economic thought. Exporting is a major component of international trade, and the macroeconomic risks and benefits of exporting are regularly discussed and disputed by economists and others. Two views concerning international trade present different perspectives. The first recognizes the benefits of international trade. The second concerns itself with the possibility that certain domestic industries (or laborers, or culture) could be harmed by foreign competition.

Process: Methods of export include a product or good or information being mailed, hand-delivered, shipped by air, shipped by vessel, uploaded to an internet site, or downloaded from an internet site. Exports also include the distribution of information that can be sent in the form of an email, an email attachment, a fax or can be shared during a telephone conversation.

National regulations: United States

The export of defense-related articles and services on the United States Munitions List (USML) is governed by the Department of State under the International Traffic in Arms Regulations (ITAR). The Bureau of Industry and Security (BIS) is responsible for implementing and enforcing the Code of Federal Regulations Title 15 chapter VII, subchapter C, also known as Export Administration Regulations (EAR), in the United States. The BIS regulates the export and reexport of most commercial items. Some commodities require a license in order to export. There are different requirements to export lawfully depending on the product or service being exported. Depending on the category the 'item' falls under, the company may need to obtain a license prior to exporting. EAR restrictions can vary from country to country. The most restricted destinations are countries under economic embargoes or designated as supporting terrorist activities, including Cuba, North Korea, Sudan, Syria and Iran (see: Sanctions against Iran). Some products have received worldwide restrictions prohibiting exports. If any items would support a proliferation activity, such as nuclear, chemical/biological, or missile proliferation activities in a country of concern, a license would be required. Part 744 of the Export Administration Regulations spells out the specific regulations related to end-user and end-use controls. There are many prohibited end users. See the consolidated U.S. Government screening list, including proscribed parties from the Departments of State and Treasury as well as Commerce. An item is considered an export whether or not it is leaving the United States temporarily, if it is leaving the United State but is not for sale (a gift), or if it is going to a wholly owned U.S. subsidiary in a foreign country. A foreign-origin item exported from the United States, transmitted or transshipped through the United States, or being returned from the United States to its foreign country of origin is considered an export. How an item is transported outside of the United States does not matter in determining export license requirements. Refer to U.S. Census Data for data on exports by rice industry.

RESEARCH METHODS

The method in this paper is quantitative research method and carried out through 2 main periods: qualitative research and quantitative research.

Qualitative research method is a method of inquiry information in a particular sample; qualitative information cannot define the quantity. Qualitative information reflects the issue, problem and outside features of a research object. Suitable statistics is in the economy and society.

Quantitative research is a method of inquiry information in a particular sample and can be measured by particular data. After conducting a qualitative research, a quantitative research would conduct to define the quantity of elements (coefficient) of survey. The method for a quantitative research is direct interview by giving questionnaire, data collection and data analysis.

Research designs are plans and the procedures for research that span the decisions from broad assumptions to detailed methods of data collection and analysis. This plan involves several decisions, and they need not taken in the order in which they make sense to me and the order of their presentation here.

The selection of research design based on the nature of the research problem or issue is being addressed, the researchers' personal experiences, and the audiences for the study. We need to know how the data was obtained because the method affects the results. Knowing how the data was collected to help the reader evaluate the validity and reliability of your results, and the conclusions you draw from them.

After preliminary investigations, formal research is done by using quantitative methods questionnaire survey of 400 persons (200 farmers and 200 exporters) who interviewed and answered about 26 questions in Mekong Delta. The reason tested measurement models, model and test research hypotheses.

Data collected were tested by the reliability index (excluding variables with correlation coefficients lower < 0.30 and variable coefficient Cronbach's alpha < 0.60), factor analysis explored (remove the variable low load factor < 0.50). The hypothesis was tested through multiple regression analysis with linear Enter method. The questionnaires used five scale level of Likert: (1) Strongly disagree; (2) Disagree; (3) Normal; (4) Agree and (5) Strongly agree. We had research results following:

RESULTS AND DISCUSSION

Table 01: Descriptive statistics and Cronbach's Alpha for factors affecting the export rice industry

1. Rice Development strategy (RDS)	Mean	S.D	Cronbach's Alpha
RDS1: Government has the development strategy of rice into a commodity industry, with prestigious brands.	3.9167	.97246	0.920
RDS2: Government has the economic restructuring and labor structure along with the process of industrialization and modernization in rural areas.	3.3306	1.10666	
RDS3: Government has to identify farmers and businesses are key actors of rice production and create linkages between farmers and benefit businesses.	3.5611	1.31061	
RDS4: Government has rice development strategy towards quality and sustainability.	3.2472	1.36510	
2. Rice Control policy (RCP)	Mean	S.D	Cronbach's Alpha
RCP1: Government has studied to change control approach for food safety to conform with the Law on Food Safety in accordance with international practice.	3.5278	1.08384	0.987
RCP2: Government has Compliance with WTO commitments.	3.5556	1.08277	
RCP3: Government has increased the competitiveness of enterprises in the process of integration, reduced costs are incurred for rice business	3.5333	1.09392	
3. Rice Industry Planning (RIP)	Mean	S.D	Cronbach's Alpha
RIP1: Government has planning is closely rice; maximize comparative advantages and resources of each province, each locality of provinces in Mekong Delta.	3.1639	.90084	0.874
RIP2: Government has built the safe production of raw materials on a large scale and advanced technology as standard VietGap and international standard.	3.2778	.95033	
RIP3: Government has planning system enterprises exporting rice processing industry planning of rice processing	3.3500	.89552	
RIP4: Government has application of modern processing technology to produce qualified products that meet the demanding markets	3.2639	.92313	
4. Rice Support policy (RSP)	Mean	S.D	Cronbach's Alpha

RSP1: The Government and relevant ministries need support policies as policies on preferential credit support to enterprises and farmers to grow rice.	2.9111	.84964	0.819
RSP2: Government has policies to encourage scientific research activities to create rice varieties with high yield and good quality.	2.8083	1.58841	
RSP3: Government has policies to attract foreign investment in order to boost investment process in depth.	2.8222	1.45558	
5. Quality of Rice seeds (QRS)	Mean	S.D	Cronbach's Alpha
QRS1: Government has element manage quality rice varieties	2.9056	.87170	0.870
QRS2: Farmers has tight control element for rice disease	2.9250	.73696	
QRS3: Elements of plant protection products for rice	2.9556	.75987	
6. Rice Cultivation techniques (RCT)	Mean	S.D	Cronbach's Alpha
RCT1: Government has investment factor for modern production technology	3.3167	1.01232	0.788
RCT2: Government has building organizational models and associated manufacturing production consumes large scale	3.3500	.91094	
RCT3: Government has cultivation techniques for producer knowledge level	3.0667	.94471	
7. Rice Post-harvest processing (RPP)	Mean	S.D	Cronbach's Alpha
RPP1: Government has capital investment for postharvest processing	2.9083	1.39435	0.809
RPP2: Government has capital investment and technical factors harvesting technology	3.0500	.96902	
RPP3: Government has capital investment element of highly qualified labor for processing	3.2056	1.24983	

(Source: SPSS by researcher)

Table 01 showed that Standard deviation (S.D) of the data is around 1.0; Mean of data is around 3: agreed. Minimum is 1 and Maximum is 5. Table 01 showed that there are 23 items and table 01 showed that there were 360 samples processed: all of variables surveyed Corrected Item-Total Correlation greater than 0.3 and Cronbach's Alpha if Item deleted greater than 0.6 and Cronbach's Alpha is very reliability. Such observations make it eligible for the survey variables after testing scale. This showed that data was suitable and reliability for researching.

Table 02: Descriptive statistics and Cronbach's Alpha for export rice industry (GER)

General assessment of export rice industry (GER)	Mean	Std. Deviation	Cronbach's Alpha
GER1: Your profits of exporters rose	3.3167	.66320	0.718
GER2: Rice farmers increase income from exporting	3.2167	.74096	
GER3: Rice added Value is over 1 hectare of land to increase rice exports	3.3528	.68040	

(Source: SPSS by researcher)

Table 02 showed that Standard deviation of the data is around 1. Mean of data is around 3: agreed. Minimum is 2 and Maximum is 5. Besides, table 02 showed that there are 3 items all of variables surveyed Corrected Item-Total Correlation greater than 0.3 and Cronbach's Alpha if Item deleted greater than 0.6 and Cronbach's Alpha is very reliability.

Table 03: Exploratory Factor Analysis for factors affecting the export rice industry

Com	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings ^a
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	
1	5.086	22.111	22.111	5.086	22.111	22.111	4.017
2	4.436	19.288	41.399	4.436	19.288	41.399	3.478
3	2.451	10.658	52.057	2.451	10.658	52.057	3.768
4	2.232	9.703	61.760	2.232	9.703	61.760	3.300
5	2.039	8.866	70.626	2.039	8.866	70.626	2.592
6	1.223	5.317	75.943	1.223	5.317	75.943	3.048
7	1.071	4.659	80.601	1.071	4.659	80.601	3.261
8	.706	3.071	83.673				
9	.550	2.393	86.066				
10	.507	2.202	88.268				
11	.457	1.986	90.254				
12	.391	1.700	91.954				
13	.351	1.526	93.479				
14	.304	1.320	94.799				
15	.272	1.184	95.984				
16	.212	.923	96.907				
17	.192	.837	97.743				
18	.164	.714	98.457				
19	.142	.618	99.075				
20	.097	.422	99.497				
21	.045	.195	99.692				
22	.041	.177	99.869				
23	.030	.131	100.000				

(Source: SPSS by researcher)

Table 03 showed that we had $\leq 1 \leq 0.5$ KMO coefficient KMO (Kaiser-Meyer-Olkin) is an index used to examine the appropriateness of factor analysis. KMO value significantly larger factor analysis is appropriate. KMO coefficient is 0.764 and the level of significance (Sig) is 0,000, said factor analysis is consistent with survey data of 400 persons (200 farmers and 200 exporters) who interviewed and answered about 23 questions in Mekong Delta but 360 persons processed (40 samples lack of information). The results of table 03 showed that eligibility data into analytical models multivariate linear regression. Total 80.601 % variance extracted is the variation of the observed variables is explained by seven factors having been drawn.

Table 04: Structure Matrix for factors affecting the export rice industry

Code	Component						
	1	2	3	4	5	6	7
RDS4	.933						
RDS1	.928						
RDS3	.905						
RDS2	.837						
RCP2		.986					
RCP1		.985					
RCP3		.982					
RIP2			.871				
RIP3			.858				
RIP1			.839				
RIP4			.834				
RSP2				.925			
RSP3				.874			
RSP1				.775			
QRS2					.960		
QRS3					.950		
QRS1					.774		
RCT1						.924	
RCT2						.871	
RCT3						.702	
RPP2							.926
RPP3							.926
RPP1							.695

(Source: SPSS by researcher)

Table 04 showed that we have a matrix of factors extraction method rotate (Principal components) and method used in rotation Promax. In any outcome study showed that 23 variable tables observation included in factor analysis discovered group factor into 7 groups as follows: X1: Rice Development strategy (RDS): 4 items; X2: Rice Control policy (RCP): 3 items; X3: Rice Industry Planning (RIP): 4 items; X4: Rice Support policy (RSP): 3 items; X5: Quality of Rice seeds (QRS): 3 items. X6: Rice Cultivation techniques (RCT): 3 items and X7: Rice Post-harvest processing (RPP): 3 items.

Table 05: Exploratory Factor Analysis for the export rice industry

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.921	64.047	64.047	1.921	64.047	64.047
2	.661	22.042	86.089			
3	.417	13.911	100.000			

(Source: SPSS by researcher)

Table 05 showed that KMO coefficient is 0.646 and the level of significance (Sig) is 0,000. Cumulative % Extraction Sums of Squared Loadings: 64.047 %.

Table 05 showed that we have a matrix of factors extraction method rotate (Principal components) and method used in rotation Promax. In any outcome study showed that 03 variable the observation included in factor analysis discovered group factor into 01 group as the export rice industry. This is dependent variable

(Y).

Table 06: Factors affecting the export rice industry

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.880	.774	.770	.48003698	1.613

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	277.887	7	39.698	172.274	.000
	Residual	81.113	352	.230		
	Total	359.000	359			

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-3.029E-016	.025		.000	1.000		
X1	.348	.028	.348	12.396	.000	.815	1.228
X2	.095	.027	.095	3.482	.001	.866	1.154
X3	.329	.030	.329	10.861	.000	.700	1.428
X4	.339	.029	.339	11.704	.000	.765	1.307
X5	.147	.026	.147	5.695	.000	.959	1.043
X6	.191	.030	.191	6.463	.000	.736	1.358
X7	.245	.030	.245	8.108	.000	.701	1.427

(Source: The researcher's collecting data and SPSS)

Table 06 showed that all significance level 0.05 and statistically significant data to explain the variation of factors affecting the export rice industry in Mekong Delta. Besides, the regression coefficient is positive. Moreover, the regression results showed the Durbin - Watson stat = 1.613 said no autocorrelation phenomena.

Table 07: Bootstrap for Coefficients

Model	B	Bootstrap ^a				
		Bias	Std. Error	Sig. (2-tailed)	95% Confidence Interval	
					Lower	Upper
(Constant)	-3.029E-016	.000	.024	1.000	-.045	.049
X1	.348	4.044E-005	.029	.001	.290	.407
X2	.095	.000	.029	.001	.037	.150
X3	.329	-.001	.028	.001	.273	.383
X4	.339	-.001	.027	.001	.286	.392
X5	.147	-.001	.022	.001	.101	.189
X6	.191	.001	.029	.001	.137	.251
X7	.245	.001	.031	.001	.184	.310

a. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples
(Source: The researcher's collecting data and SPSS)

Table 07 showed that bootstrap results are based on 1000 bootstrap samples. The bias is very small, nearly is around 0.00. Besides, there is the considering magnification coefficient variance VIF (Variance Inflation Factor). VIF is exaggerated coefficient variance, when VIF value exceeding 10 is shown signs of multicollinearity phenomenon. While results tables can assert no correlation between the independent variables in the equation. Meaning no multicollinearity phenomenon by VIF values less than 10.

CONCLUSIONS

The regression analysis results showed that there were seven factors, which included of factors following: Development strategy; Control policy; Planning; Support policy; Rice seeds; Cultivation techniques and Post-harvest processing actually affected the export rice industry with 5 % significance level. In addition, the research result processed from SPSS 20.0 software. At the same time, the result was also a scientific evidence and important for researchers, and policy makers who apply them for improving policy on the export rice industry. We had recommendations following:

Component 1: Rice Development strategy

Mekong Delta is to find a leading exporter of rice on the international market, the quality of rice has met the varied tastes of this market. Improve the quality of rice have decisive significance to reach development targets rice production towards modern, efficient and sustainable rice development in the future.

Component 2: Rice Control policy

Mekong Delta is organizing trade missions, trade promotion in the region of which focused on promoting exports of rice. Coordinate with the VCCI, the International Francophone Organization (OIF) and the International Trade Centre (ITC) to establish the relationship between commercial banks in Vietnam and Africa, the rice export business, creating conditions for business activities and export payments.

Component 3: Rice Industry Planning

Mekong Delta promotes the Vietnam Food Association to manage more actively registered contract rice exports; Food Association is the provider of information on export prices, and costs

processing - export; coordinate relevant departments such as customs, taxation ... prevent fraud registration price of rice export contracts.

Component 4: Rice Support policy

Mekong Delta is to brand Vietnam rice that can say is like "her sleeping Beauty"; because, so many years, Vietnam's export rice normally appears with a very bland name "long grain white rice" and was closed "marking" of companies, food conglomerates intermediary business of other countries, of course the company, the company will never make a brand for Vietnam rice.

Component 5: Quality of Rice seeds

Mekong Delta continues to invest the construction of commercial rice production area with a large scale, to develop resources sustainable materials. In fact, implementing active role in linking the four houses, which are "State, scientist, entrepreneur and Farmers".

Component 6: Rice Cultivation techniques

Mekong Delta continues to invest in infrastructure systems serving production. This is the first condition may decide to produce efficiently. This system needs to be equipped with modern, synchronous; make tells the competitiveness of rice.

Component 7: Rice Post-harvest processing

Mekong Delta continues to invest to strengthen the capacity of governments to support farmers to cope with the disadvantage in manufacturing as well as in the market. Within the agriculture, the short-term support can provide inputs (machinery, seeds, fertilizers...) so that they can expand under strong production models such as farms, large cultivation areas.

REFERENCES CITED

1. AgroInfor (2009). *Vietnam Annual Rice Market Report 2008*. Information Center for Agriculture and Rural Development. Institute of Policies and Strategies for Agriculture and Rural Development, Hanoi.
2. Aman, R. R. (2009). *Improving the export rice industry and retention with online instruction through systematic faculty peer review of courses*. An unpublished doctoral dissertation. Oregon State University.
3. Ary, D., Jacobs, L., Sorensen, C. & Razavieh, A. (2009). *Introduction to research in education (8th ed.)*. Belmont, CA: Wadworth.
4. Becket, N. & Brookes, M. (2006). *Evaluating quality management in university departments*. Quality Assurance in Education.
5. Bell, J.E. (1989). *Projective Techniques: A Dynamic Approach to the Study of Personality*. New York: Longmans.
6. Benjamin, D. and Brandt, L. (2002). *Agriculture and Income Distribution in Rural Vietnam under Economic Reforms: A Tale of Two Regions*. William Davidson Institute Working, University of Michigan.
7. Berg, B. (2001). *Qualitative research methods for the social sciences*. Boston: Allyn and Bacon.
8. Bernstein, William (2008). *A Splendid Exchange: How Trade Shaped the World*. New York: Grove Press.
9. Bryman, Alan; Cramer, Duncan (2011). *Quantitative Data Analysis with IBM SPSS 17, 18 and 19: A Guide for Social Scientists*. New York: Routledge.
10. Georges Giraud (2013). The World Market of Fragrant Rice, Main Issues and Perspectives. *International Food and Agribusiness Management Review*.
11. Hong Choeun (2006). The economics and politics of rice export taxation in Thailand: A historical simulation analysis, 1950–1985. *Journal of Asian Economics*.
12. Linh H. Vu (2011). Efficiency of Rice Farming Households in Vietnam: A DEA with Bootstrap and Stochastic Frontier Application. *Department of Applied Economics, University of Minnesota*.
13. Mahfoozur Rahman (2010). Rationale and mechanics of rice exports from Bangladesh. *International Food Policy Research Institute, Bangladesh*.
14. Phélinas, P. M (2001). *Sustainability of Rice Production in Thailand*. Hauppauge, New York: Nova Science Publishers, Inc.,.
15. Bogahawatte, C (1982). *Governmental Agricultural Policies and Their Impact on Supply and Demand for Rice in Sri Lanka*. Ph.D. dissertation. Texas A&M Univ.
16. Beach, John; Grant, Warren R.; and Lin, William (1984). *Factors Affecting Supply, Demand, and Prices of U.S. Rice*. U.S. Department of Agriculture, Economic Research Service, National Economics Division.