Improving the Competitiveness of Agri-Food Industry and Promotion of Agri-Food Products in Foreign Markets (Empirical and Econometrical Analysis in Case of Uzbekistan)

Ph.D. Candidate Khulkar Karimova (University of World Economy and Diplomacy, Uzbekistan)

Abstract

This study aims to explain the factors influencing agri-food industry production. The paper examines driving factors, current status of the whole industry, analyzing problems and potential opportunities. In the study, econometric analysis is used in order to derive sensitivity estimators. Relying on the estimators, further conclusions and recommendations are made to improve the production and export of agri-food industry in Uzbekistan.

1 Introduction

Today "industry" is the backbone of the country's economic potential. Only competitive industry is able to provide economic value to the economy as a whole. To create competitive industry, it is not essential just to renovate production and management, but also to know exactly what it is, what objective should be achieved. In this regard, the analysis becomes particularly relevant issue associated with the development of competitiveness of the national industry. Therefore, to establish and improve the mechanism of the competitiveness of the industry, in case of agri-food industry is a prerequisite ensure and / or strengthen the competitive advantages of the industry and the national economy as a whole.

The agri-food industry occupies a special place in the economy. "Increase in agricultural production and the rise in the per-capita income of the rural community, together with the industrialization and urbanization, lead to an increased demand in industrial production" Dr. Bright Singh. Hence, the problem of effective development of agrifood industry has become one of the major debated issues of the economy.

Development of the theory and practice of improving the competitiveness of agri-food industries has theoretical and practical importance in the present conditions. Implementation of effective activity in the conditions of market competition focuses on the activities of food producing enterprises, demand for their products, expanding reproduction, investment, technology. The problem of industrial competitiveness is very important, because the further economic development of the country directly relates to the formation of an effective mechanism for enhancing the competitiveness of food producing enterprises and so further expands its targeted markets, and this determines the relevance of the topic dissertation research.

Uzbekistan is one of the Central Asian countries having the most rapidly emerging economy. Every year, largescale investment projects aimed at further development of economic, social, infrastructure, transport and communication networks are implemented in Uzbekistan, thereby creating new jobs and generating incomes. Implementation of the longsighted development strategy has allowed our country, among one of the few countries in the world, to ensure high GDP growth and industrial production rates. The annual growth rate of food production in Uzbekistan is 10-15%. To increase the competitiveness of the industry and its significance in the economy, a number of reform and policies have been introduced. The program of measures to ensure structural reforms, modernization and diversification of the production for the period of 2015-2019 has been adopted and envisaged main areas. The program will ensure more than 2.7 times export growth of fresh and processed fruit and vegetable products, including canned food, concentrates and juices - 2.5 times. Further establishment of 15 trade and logistic centers with the total capacity of 60 thousand tons have been considered. Financial support of the programs also aimed at 180 investment projects on construction of new, reconstruction and modernization of the existing facilities for processing agricultural raw materials and producing semi-finished and finished products, as well as containers and packaging materials totally worth USD 595.9 million. Development of packaging sector in order to develop food product packaging services at the level of modern requirements, the program will be implemented in cooperation with the leading foreign companies and provide Production of new modern types of food packaging, such as vacuum packaging, neutral gas environment packaging, glass containers of international standards, "twistoff" caps, multi-layer films and other food packaging will be implemented.

Despite the fact that Uzbekistan has a great potential for the development of this sector, still there are several challenges which should be addressed and take certain remedies to control them in order to achieve highly competitive industry and promote Uzbek made agri-food products in foreign markets. The most challenging barrier in the process of production and export of agri-food industry are mainly the followings: limited access to financial resources for exporters, disadvantages in the export insurance system, licensing of procurement organizations, packaging of fruits and vegetables, insufficient volumes for storage of products and etc.

Currently, Uzbekistan has designed the goals of the strategy for 2017-2021 which addressed the issues of the increase in the effectiveness of the reforms being implemented, creating conditions for ensuring comprehensive

and accelerated development of the state and society, implementing priority directions for the country's modernization and liberalizing all spheres of life. In the strategy, the following main points in terms of agri-food industry are taken into consideration:

Development and economic liberalization aimed at increasing competitiveness and openness, freedom of economic activity, strengthening of macroeconomic stability and the preservation of economic growth, modernization and active diversification of the leading sectors of the economy;

Deepening of structural reforms and the development of agricultural production, strengthen the country's food security; increase the production of environmentally friendly products and to significantly increase the export potential of the agricultural sector etc.

Despite the fact that it has rich mineral resources, Uzbekistan is a highly agrarian country, with rural population of more than 60% and accounting agriculture for around 30% of both employment and GDP. Being dependent on agriculture, Uzbekistan has low income per capita: \$2.250 compared with nearly \$12,000 for Russia (PPP equivalents, 2006 data from World Development Indicators). The low income and the high agrarian profile justify clause and drive the efforts for the agricultural reform in the hope of improving the population's well-being.

2 Theoretical and Econometrical Analysis

Methodical positions developed by the author of the study, provide an opportunity based on key factors and mechanisms to improve the competitiveness strategy to develop the competitiveness of a specific industry. The proposed approach to the evaluation of the competitiveness of the industry tends to determine competitive sectors of agri-business and formulate the strategies to expand the economic borders of markets. At the end of the thesis, the study will provide possible policy recommendation to develop agri-food industry and its competitiveness.

To reach the sensitivity of food industry competitiveness to other economic indicators, conditions and policies, the econometric model has been run using Change in agricultural production which represents to condition of analysis in accordance with its sensitivity to different economic indicators. Analysis and sensitivity determining factors captures the last 23 years from 1992 year. Econometric analysis is based on time-series data, the model (OLS) is formed with regression analysis by adding controlling determinants. The initial econometric equation as follows:

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lny_i = a_1 + lnb * x_1 + \gamma_1;
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Where,

y_i represents Change in Agricultural Production;

 a_1 represents the slope of the equation;

 $b * x_1$ represent b-sensitivity indicator, elasticity of the first independent factor and x_1 - the factor;

 y_1 represents the error term of the equation;

Throughout the analysis, further controlling determinants are being added to identify which factor affects more and by how much.

As the most effecting economic indicator GDP growth boosts any kind of industry through supplying greater purchasing power parity, increased savings, higher employment, thus increase in GDP growth leads to expand the scope and capacity of the industry. Consequently, controlling the change in agricultural production also closely correlated with change in GDP growth. Looking at the first regression estimators, one percentage change in GDP results to 0.0235 percentage increases in change in agricultural production, with one percent confidence level. This is both economically and statistically reasonable.

Further, we added another controlling determinant - Change in FDI and government expenditure and Trade, in this case, the effect of FDI and government expenditure became statistically unbiased, while change in Trade is biased, with one percent change in FDI growth and government expenditure lead to 0.0202 increase and 0.469 percent decrease in change agricultural production respectively holding other variables constant (Table-2.3.1). Running the regression with controlling variables: change in unemployment rate, GDP growth and FDI has revealed statistically insignificant, whereas they are all economically significant. Economically increase in unemployment, especially in labor employed in the agriculture sector leads to decrease in production volume, whereas lessens direct production variable costs. On the other hand, the effect of this change is examined with the percentage of this multiple side effect.

According to many scholars' works, agriculture production is mainly used for food and non-food production, as row materials and processing ingredients. Thus, controlling for the degree of elasticity of food and food production reveals significant correlations. While considering change in food and non-food production results in 0.744 and 0.268 percent increase in the production of agricultural products.

According to regression analysis, while considering change in trade, in trade freedom, economic freedom, business freedom, fiscal freedom, financial freedom, they have highly correlated with production volume, yet these

all indicators are high economically significant. Examining the economic condition and economic indicators influencing the development of agro-food industry, with respect of economic indicators, regulatory policies and available conditions for doing business are considered as very essential aspects which stimulates the whole industry and its competitiveness.

Consequently, achieving the competitive industry results in expansion its trade in foreign markets, decrease in trade deficit and leading to obtain further sustainable development of the country.

All estimators are quite fit the model, with high R squares and significance level highly p values.

	-1	-2	-3	-4	-5
VARIABLES	Change in				
	agricultural production				
GDP growth	0.0235***	0,0104	0.0203**	0,0013	production
8	(0.00734)	(0.00824)	(0.00853)	(0.00174)	
Change in FDI		0.0202*	0,0192	,	
		(0.0125)	(0.0138)		
Change in government expenditure		-0.469**			
		(0.205)			
Change in trade		-0,0636			
Cl		(0.134)	0.00641		
Change in unemployment			0,00641 (0.00920)		
Change in food production			(0.00920)	0.744***	
change in rood production				(0.0219)	
Change in non-food production				0.268***	
				(0.0461)	
Change in trade freedom					0,0718
					(0.0588)
Change in economic freedom					-0.252**
					(0.114)
Change in business freedom					0.299*
Change in fiscal freedom					(0.144) 0.566***
Change in fiscal freedom					(0.183)
Change in financial freedom					-0.131**
8					(0.0609)
Constant	4.494***	6.478***	4.444***	-0,0609	1.988***
	(0.0470)	(1.028)	(0.107)	(0.234)	(0.313)
Observations	24	24	24	24	24
R-squared	0,319	0,521	0,403	0,989	0,905

Standard errors in parentheses

Table 1. Regression Analysis Source: Constructed by the Author

As there is no single, generally recognized description of competitiveness and relying on the former works of scholars, competitiveness of the industry can be defined as a firm's success in comparison with other firms in the industry, national and international scene, having more competent commodity in terms of quality, safety, price and availability. Furthermore, world experience regarding trade facilitation mechanisms manly considers the areas of monetary and fiscal policies, development of infrastructure and improved interaction between the agencies of trade procedures. In accordance with the experiences of different developed and developing countries, lessening trade barriers as tariffs, import and export taxes, getting loans, transparency of accounts as well as improved logistics have great effect on the enhancement and support of trade facilitation processes.

3 Conclusion

The overriding purpose of this study was to determine the factors leading to improving the competitiveness of agri-food industry and promotion of agri-food products in foreign markets (empirical and econometrical analysis in case of Uzbekistan). The production of agri-food products in Uzbekistan has a long tradition and good prospects for development. Nature and climate conditions of the country are very beneficial for growing different varieties of agricultural products with an exceptional taste. A considerable portion of the agricultural land in almost all regions of the republic is suitable for growing agricultural products. To accomplish that goal it became necessary

^{***} p<0.01, ** p<0.05, * p<0.1

to reach some prerequisite goals. Determining what economic, fiscal, monetary factors lead to the sensitivity of competitiveness of the industry and to what extend they respond to the change in these determinants. Additionally, it is necessary to determine the barriers in the industry through examining and analyzing the current condition of development and export potential so as the export indicators are main determinants of assessing the present state of the industry. In accordance with analysis and study, we could manage to reach several conclusions and made some recommendations to increase the competitiveness of the industry and its export potential. However, economic theory does not develop a common approach to defining the essence of competitiveness of agri-food producing enterprise and assessing the level of competitiveness of the enterprise, enhance process the competitiveness of food producing enterprises. Thus, the need for agri-food producing enterprises in the implementation of theoretical developments on competitiveness is an important step toward improving the competitiveness of agri-food industry. Related to that effort, it became necessary to reach an understanding about the nature of the industry comparing to the foreign experience and previous studies. To provide for the possibility that assess the competitiveness and export prospects, it was important to develop a model with the potential for encompassing the totality of determinant factors and the industry interaction. Once these fundamental steps were achieved, this research was able to go forward. Further reports the conclusions and recommendations that resulted from this study.

As there is no single, generally recognized description of competitiveness and relying on the former works of scholars, competitiveness of the industry can be defined as a firm's success in comparison with other firms in the industry, national and international scene, having more competent commodity in terms of quality, safety, price and availability. Furthermore, world experience regarding trade facilitation mechanisms manly considers the areas of monetary and fiscal policies, development of infrastructure and improved interaction between the agencies of trade procedures. In accordance with the experiences of different developed and developing countries, lessening trade barriers as tariffs, import and export taxes, getting loans, transparency of accounts as well as improved logistics have great effect on the enhancement and support of trade facilitation processes.

The assessment of the legal aspects and current condition of agri-food industry, the structure and potential of examined sector is increasing significantly leading to further enhancement the food industry and implement more modernized techniques which in deed will lead to increase the competitiveness of the whole industry and economy. Thus, all these factors, reforms, laws will contribute to achieve an irreplaceable place in the world market, gaining a significant market share and ensuring the high level of living standard of the people of the country.

In accordance with econometric analysis and model, overall, the whole economic condition, business environment and limitation associated with agricultural issues influence on the degree of elasticity of determinants. Based on the results, the most influencing factors are available opportunities in the sphere of doing business, financial, trade, and economic freedom. Although, the impact of factors like GDP growth, unemployment rate, FDI and other two supplementary industries (food and non-food production volume) have impacted significantly, financial, fiscal, trade environment have noticeably effect determining competitiveness. Taking the whole industry, the improvement the structure of rural development policies should be implemented.

Consequently, after examining the industry condition and identifying affecting factors and their sensitivity, a number of recommendations have been formulated. Mainly, the recommendations have focused on the spheres of creating favorable economic and business climate to make business and increase the importance of the industry. In addition, a number of recommendations have been directed to the industry itself as improving the packaging, processing and storage system of agricultural products as well as improving the licensing, crediting and easing of rules of operating.

In particular the following remedies have been formulated for the current barriers in the industry development:

- To cancel the requirement for a license or to reduce the requirements for obtaining it.
- Facilitate the creation of associations, which creates an opportunity to syndicate agricultural production, processing and possibly trading activities of a sector's value chain.
- The creation of refrigerated warehouses in the immediate vicinity of the place of production, and not only in the regional centers.
- To create and develop already established national transport companies with their own large transport fleet and the possibility of back loading from the markets of Uzbek agricultural products, as well as the organization of multimodal transport services.
- To improve the business climate within the sector require: the strengthening of confidence in contractual arrangements between enterprises all along the value chain agricultural producers and processors, trading companies, etc.

As for export facilitation mechanisms:

Introducing changes in management, working practices and production technology to meet new market requirement.

Design new convenient, durable and attractive packages tailored to the requirements of industrial and final consumers in the target export markets. Renovate production technologies and modernize equipment. In particular, the transition to new products and packaging (juices in smaller packs, twist-off jars, containers, etc.) needs new highly efficient technical solutions.

Establishing a taxation regime that recognizes and supports the agricultural production and processing cycle of the sector.

Facilitation across government departments of the creation of joint ventures of Uzbek processors with foreign consumers from Russia, Kazakhstan and other countries would allow combined inflow of investments and marketing information necessary to sustain export market shares.

Fruitful dialogue between public and private sectors enables to identify the needs of the market more precisely and facilitate the search for reliable and long -term solutions.

Further perspectives of agri-food industry in Uzbekistan

The deepening of structural reforms within the agrarian sector and the diversification of agricultural production should be put into practice further.

The modernization and the technical and technological renewal of the agrarian sector, and of the infrastructure facilities and businesses that process agricultural products.

To increase the financial stability of farm entities, the liberalization of agricultural policy, and to strengthen the protection of the rights of agricultural producers

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