Indonesian Shrimp Export to United States of America: Trends, Performance, and Competitiveness.

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INTRODUCTION

Fisheries are one of the most important sectors that supports more than 200 million livelihoods who work in harvesting, processing, marketing, distribution, and supply industries (FAO,2008). Fish is also a source of protein for humans, providing ~20% of the animal protein consumed by more than 1.5 billion people in the world (FAO, 2008). In the last three decades, world food fish production from aquaculture has increased by almost 12 times, at an average annual rate of 8.8% (FAO, 2012). Asia accounts for more than 87% of the world's total fish production from aquaculture (FAO, 2012). It is About 38% of the fish and fishery produce are traded internationally(Anon, 2008). About half of the trade-in fish and fishery products originated from developing countries and are destined for the developed markets of Europe, the United States of America, and Japan (Anon, 2008).

As an archipelago, Indonesia has great potential in the fisheries industry, mainly because it has a reasonably broad sea area, 7.9 million km2, and coastline along the 80,791 km2 with extensive aquaculture and fish pond spread in some parts of the country. Indonesia has a vast 81 percent water area of the total area, so Indonesia may have much potential to rule the business world fisheries. Besides tuna, Indonesia is one of the world's largest shrimp exporting countries, especially to the United States, Japan, and EU markets (Wati, 2013). This study is an attempt to analyze the trend, performance, and competitiveness of Indonesian shrimp exports to the United States market.

MATERIAL AND METHODS

The export and import data were collected from the United Nations UN COMTRADE statistical database. All of the values have been referred in US dollars, and the volumes were in tons. Classification of HS Code to group commodities was based on the data from the Ministry of Marine Affairs and Fisheries.

The trade balance is the difference between Indonesia's exports to the USA and Indonesia's imports from the USA. It was calculated to analyze the bilateral trade patterns that occur between Indonesia and the United States for shrimp-based products. The results would suggest either Indonesia is the major exporter or importer of shrimp to the United States.

Revealed Comparative Advantage (RCA), one of the most popular methods for studying the comparative advantage of exports, was used in this study. RCA uses the trade pattern to identify the sectors in which an economy has a comparative advantage by comparing the country of interests' trade profile with the world average. The RCA index is defined as the ratio of two shares. The numerator is the share of a country's total exports of the commodity of interest in its total exports. The denominator is share of world exports of the same commodity in total world exports. According to Balassa (1965), the formula to calculate the RCA is as follows:

RCA = (XJi/XJt)/(XWi/XWt) Where; XJi = *Country J's exports of good i;* XJt = *Country J's total exports;* XWi = *Total world trade in good i;* XWt = *Total World Trade.*

if RCA>1, then the good has a comparative advantage, accelerating product for export-oriented. But, if RCA < 1, the country is said to have a relative disadvantage in the good or industry.

RESULTS

In 2018, shrimp was accounted for as the highest export value to the United States among the other commodities, which is shown in Figure 1. The total value of Indonesian's fisheries products exported to the United States was 1882 Million USD, while 59.99% of them or 1129 Million USD was shrimp, and followed by crabs by 18.86% or 355 Million USD, Tuna & Tuna like species by 11.21% or 211 Million USD, Tilapia 2.13% or 211 Million USD, Mollusk 1.91% or 211 Million USD, and Other fish by 5.90% or 111 Million USD.

Fig.1. Indonesian Fish Exported to USA
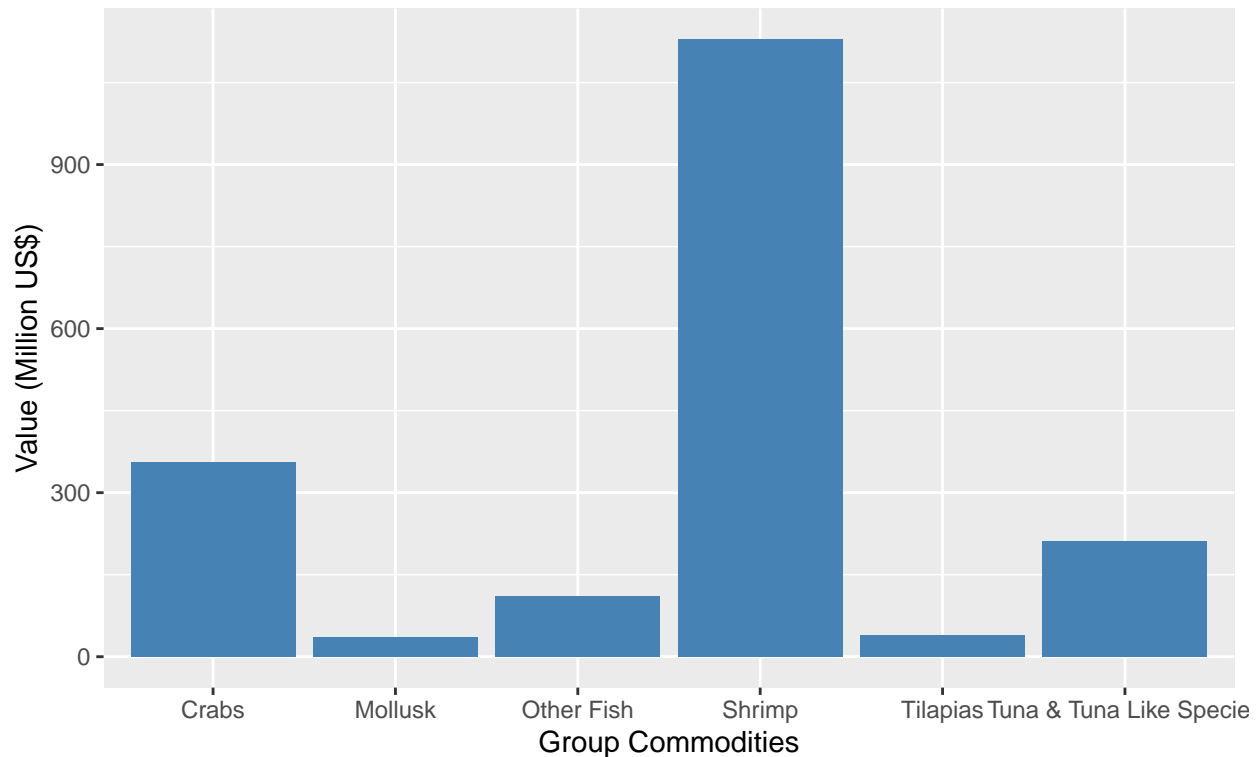Based on Group Commodities in 2018

Figure 2. shows that in general, shrimp exports from Indonesia to the United States have increased in the last ten years (2008-2018) both in volume and value. However, the increase is more in terms of value than the quantity. Based on the further analysis, it is also suggested that the exported shrimp products was mostly frozen for about 81.84% or 924 Million USD, followed by prepared or preserved with proportion 17.80% or 201 Million USD, while other forms such as live, smoked, and dried are each less than 1%.

Table 1: Trade balance of Shrimp between Indonesia and USA during 2008 - 2018

Year	Indonesia export (000 USD)	Indonesia Import (000 USD)	Trade Balance (000 USD)
2008	553062	622	552440
2009	437467	529	436938
2010	447070	612	446458
2011	619496	790	618706
2012	586438	810	585628
2013	852119	655	851464
2014	1241314	993	1240321
2015	904728	801	903927
2016	1073178	6153	1067025
2017	1173821	5795	1168026
2018	1129167	5347	1123820

Fig.2. Performance of Indonesian Shrimp Export
to USA during 2008 – 2018
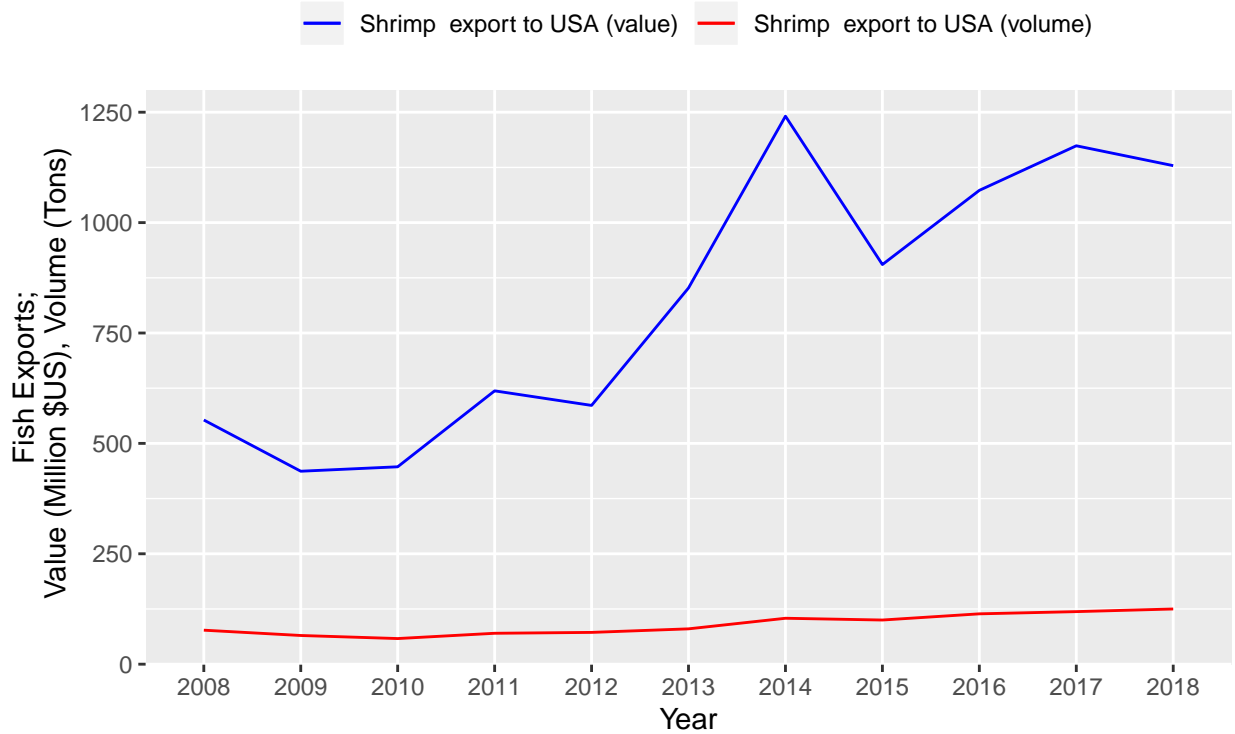
The trade balance shown in Table 1. revealed that net trade for shrimp-based fishery products exported from Indonesia to the United States was positive. The number indicates that even though there is a bilateral trade between Indonesia and the United States in shrimp products, Indonesia is a major exporter of shrimp to the United States rather than being an importer of shrimp from the United States.

The RCA of Indonesian shrimp exports to the United States are presented in Figure 3 revealed that it was highly positive (RCA> 1) with an average 20.91. This shows that Indonesia has a strong comparative advantage in exporting shrimp to the United States. Moreover, the figure also explains that generally, in the

last ten years, despite a gradual decrease from 2008 to 2010, the RCA has increased from 13 in 2010 to 25 in 2018.

Fig.3. Revealed Comparative Advantage (RCA) of Indonesian's Shrimp exports to USA during 2008 – 2018
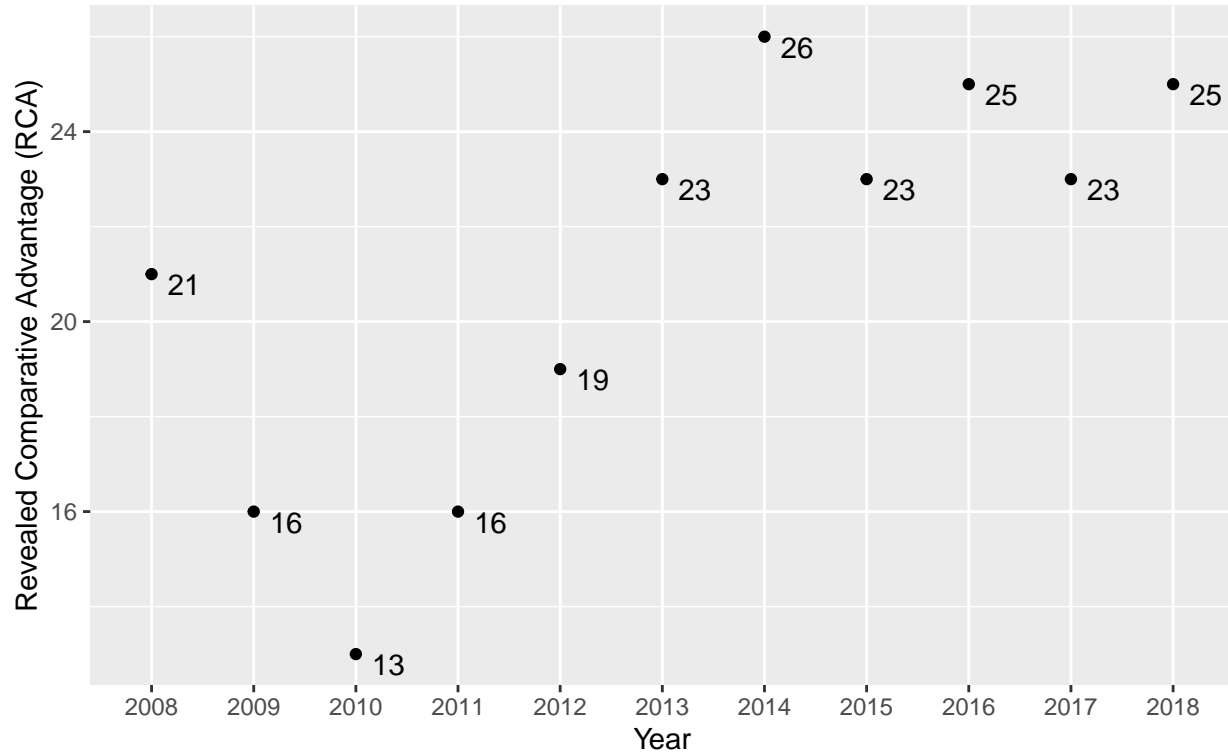
The best period is from 2010 to 2014 when the RCA continuously increased, while after 2014, it becomes volatile, which tends to decline. The decrease in RCA could be caused by many factors such as the decrease in the volume of demand for frozen shrimp by the importing country, the rejection of Indonesian shrimp by the importing country as a result of antibiotic use, the high or low value of a country's GDP, and the limitations and rules set by the importing country (Mufa'ah, 2016). But mainly in the case of shrimp, Saputri (2017) suggest that the primary factor is the presence of large shrimp companies or suppliers from competing countries such as Vietnam and India. Those countries have become the largest shrimp exporter in the world, which makes the competition very tight and an obstacle for Indonesia. On the other hand, Indonesia still lacks in the application of production technology.

Globalization makes the market competition very hard these days. Free trade encourages every country in the world to take appropriate and effective steps to improve its competitiveness. Indonesia, which has a lot of natural resources and abundant workforce with competitive wages as supporting factors for competitiveness, turns out to be insufficient to create a competitive advantage. To improve competitiveness, Indonesia needs to conduct various evaluations and efforts so as not to lag behind competing countries.

CONCLUSION AND SUGGESTION

Shrimp has the highest value among other fish commodities exported to the United States in 2018. Most of the shrimp products were shipped in frozen and prepared or preserved. The positive trade balance also suggests that in the bilateral relations, Indonesia is a major exporter of shrimp to the United States. Furthermore, it is revealed that shrimp is a highly competitive export commodity as the value of RCA is far greater than one. However, in the last five years, started from 2014, the RCA's trend has fluctuated and

tends to decrease due to a large amount of competition from shrimp suppliers from other countries such as Vietnam and India.

One of the best ways to increase the competitiveness of Indonesian shrimp commodities is by improving the quality and quantity of shrimp. The provision of knowledge about intensive maintenance and handling to shrimp farmers and producers is needed, considering that shrimp is a perishable commodity. Besides, shrimp farmers or producers are also expected to be able to optimize value-added commodities.

REFERENCES

Anon. (2008). Fisheries and International Trade- Department for International Development (DFID) and Marine Resources Assessment Group (MRAG)- Policy Brief 7, United Kingdom

Balassa, Bela. (1965). "Trade Liberalisation and 'Revealed' Comparative Advantage". The Manchester School of Economic and Social Studies, Vol. 33, Manchester, 1965, pp. 99-123.

Food and Agriculture Organization (FAO). (2008). Climate change implications for fisheries and aquaculture. FAO Fisheries Aquaculture Technical Paper 530. Rome, Italy.

Food and Agriculture Organization (FAO). (2012). The State of World Fisheries and Aquaculture. 10 p. FAO Organization of the United Nations, Rome

Mufa'ah, & Hayati, Mardiah. (2016). Analysis Of Export Competitiveness Of Indonesian Shrimp Commodities. AGRIFO Vol. 1 No.1.

Saputri, Karunia. (2016). Opportunities and Constraints of Indonesian Shrimp Exports to the Japanese Market. E- Mulawarman 5, 4, 1179-1194.

UNCOMTRADE. (2010-2018). United Nations Commodity Trade Statistics Database – get trade data (http://comtrade.un.org/db/dqQuickQuery.aspx)

Wati, L.A., Wen, Chang, and Mustadjab, M. (2013). Competitiveness of Indonesian Shrimp Compare with Thailand Shrimp in Export Market. Wacana Vol. 16 No.1.