THE EFFECT OF SUBSTITUTION SEAWEED IN INSTANT NOODLES TO THE INDONESIA BALANCE OF TRADE IN INDONESIA

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Abstract— Food is the human primary basic need for their metabolism. The high activity of society has recently been habit-forming consume fast food because they do not have a lot of time. A lack of awareness of the health food and nutritious also supports the habit of eating unhealthy food. Fast food is solution for many people in meet the needs of its primary. One of fast food that very popular is instant noodles. Instant noodles are generally preferred by any levels of society.
Statistic data from BPS (Central Bureau of Statistics) 2013 shows that the consumption of instant noodles in Indonesia is 14.900 million packs. The high consumption level of noodle is accompanied by the high grain import. In addition from BPS in 2014 also show that grain imports is 191691,0 million USD. However, the high wheat import inversely proportional is -1659,0 million USD to the balance of trade in the same year. 60 percent wheat consumption in Indonesia are used for producing noodle and 20 percent from there is used in the production of instant noodles (APTINDO 2015). With high consumption of instant noodles has been supported wheat import. The dependence of import does not support the economy and independence in Indonesia. Because of that the substitution replacement is really needed to make instant noodles from grain with other material. One of them is noodle with seaweed flour based. Instant noodles with seaweed flour based is a healthy food that rich in fiber and carbohydrates. Replacement raw material of noodle with seaweed flour believed to be able to reduce imports of flour in the country so that food economycan remain stable when the price of flour fluctuating globally. On the other hand, fisherman can trade on their own because it has the market which remains. Instant noodles products made with the substitution of flour seaweed will be well developed to improve healthy food for the community.

Jelcodes— Noodle, Wheat , Imports , Seaweed , Independent.

I. INTRODUCTION

Noodles are an alternative food consumed by the people of Indonesia in every circle. Consumption of instant noodles in Indonesia based on data from the World Instant Noodles Association (WINA) in 2013 amounted to 14.900 million packs. Based on this data Indonesia had the second highest after China/Hongkong. The high level of consumption mi instant be accompanied with the high wheat import. About 20% of imports of wheat flour In Indonesia was used as raw material for noodle making. This situation resulted in the level of imports of wheat flour in Indonesia is quite high. Statistics of BPS (Central Bureau of Statistics) 2014 also shows wheat import is 191691,0 million US$. The high import wheat inversely proportional to trade balance in the same year that is -1659,0 million USD. On the other hand, Indonesia has high natural resources. The use of other material in making instant noodle is the solution offered.
One of raw materials that can be used namely seaweed. Substitution seaweed to wheat in instant noodle can be done of the range 30 % (Korwil V Kalimantan 2013). Processing and diversification can also be an attempt at nationalization of seaweed that can be accepted by all people of Indonesia. The use of seaweed in the product instant noodle as wheat flour substitution can also reduce wheat trade imports in Indonesia.

II. METHOD

This research methodology is based by secondary data which based on literature review. The data of wheat flour usage in Indonesia is specified for data retrieval. Then the data wheat flour devoted to its use as a raw material instant noodles with reference to the data APTINDO 2015. Data were processed using quantitative calculations with ceteris paribus assumption on other import data. The data that obtained quantitative calculations are used as a reference for comparison. This data then used to determine the effect of substitution of seaweed on wheat flour imports and trade balance in Indonesia. Method used in this study tend to use literature review. The literature review conducted on secondary data research results that already exist and relate to the topic carried. While writing method used in preparing this study consists of the determination frame of mind, ideas, data collection, processing and analysis of data, conclusions, and the formulation of solutions.

III. RESULTS AND DISCUSSION

Dependence of instant noodles in Indonesia is currently very high. High consumption of instant noodles also supports the import of wheat flour. Wheat flour consumption in Indonesia 60% of which is used to produce noodles and 20% of them are used

in the production of instant noodles (APTINDO 2015). Diagram of the use of imported wheat can be seen in Figure 1.

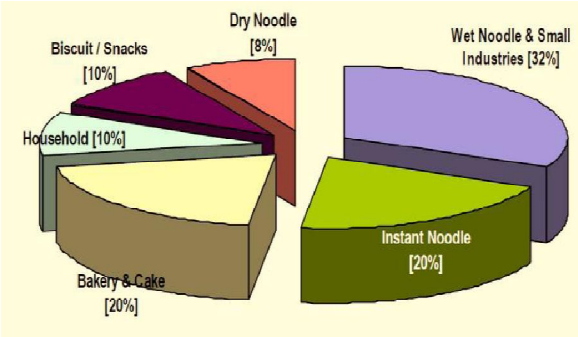


Figure 1 .Wheat market diagram over the final product (APTINDO 2015)

Import dependency itself not support the economy and independence in Indonesia. Therefore urgently needed a replacement substitution of instant noodles made from wheat flour with other ingredients. One of them is noodles made from the flour of seaweed. Statistical data from 2013 WINA in Figure 2 shows the consumption of instant noodles in Indonesia in 2013 was 14,900 billion. The high level of consumption of instant noodles is accompanied by high imports of wheat. On the other hand, the high rate of imports of wheat led to a growing number of government-issued foreign exchange to meet domestic needs. Habits imports continuously Indonesia will threaten food security in the long term. Charts the relationship between the trade balance, wheat import and noodle consumption in Indonesia can be seen in Figure 2.

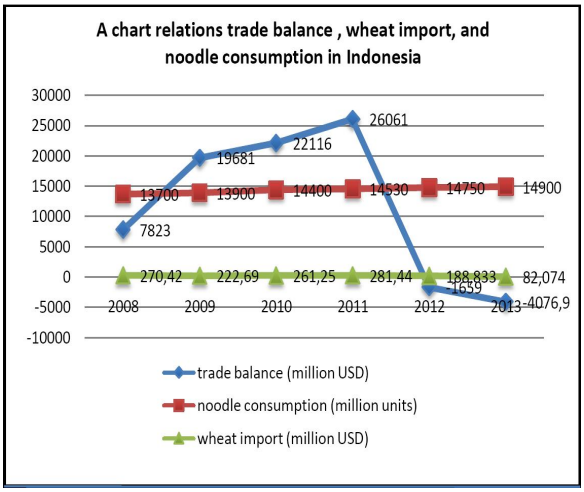


Figure 2 A chart relations trade balance (BPS 2013), wheat import (BPS 2013), and noodle consumption in Indonesia (WINA 2013)

The substitution of seaweed in the formulations of the noodles is one of a solution in pressings imports of wheat flour in Indonesia. The utilization of seaweed according to Lubis et al. (2013) can be maximized with diversified the processed products seaweed is one effort to increase of the to and economic values of seaweed. The substitution of seaweed against wheat on instant noodles is among the range of 30% (Korwil V Regional Kalimantan 2013).

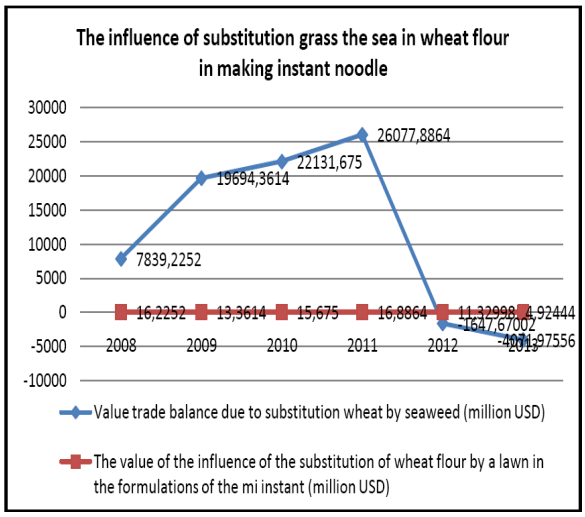


Figure 3 the effect of the substitution of seaweed in the manufacture of mi instant

Import values in Figure 2 and Figure 3 wheat based quantitative analysis performed significantly reduce wheat imports. Manufacture of instant noodles is very influential in the number of imports. By 60% or approximately 115,014.6 million USD used to produce noodles. Used instant noodle production of wheat tersebt import value is 20% or 23002.92 million USD. Based on research conducted by a team of Korwil V Regional Kalimantan showed that the ratio of flour can be substituted with the seaweed is 30% of the total weights used in the manufacture of instant noodles. Quantitative calculations were performed assuming ceteris paribus greatly affect the value of imports. It will be very meaningful because it can reduce the value of grain imports amounted to 6960.87 million USD. Figures imports of wheat in 2008 is 270.42 million USD then the substitution seaweed into 16.2252 million USD, the trade balance and then firmed to 7839.2252 million USD from the previous 7823 million USD. Figures imports of wheat in 2009 is 222.69 million USD then the substitution seaweed into 13.3624 million USD, the trade balance and then firmed to 19694.3614 million USD from the previous 19 681 million USD. Figures imports of wheat in 2010 is 261.25 million USD then the substitution seaweed be 15.675 million USD, the trade balance and then firmed to 22131.675 million USD from the previous USD 22116 million USD.

Figures imports of wheat in 2011 is $ 281.44 million USD and then with substitution of seaweed into 16.8864 million USD, the trade balance and then firmed to 26077.8864 million USD from the previous 26061 million USD. Figures imports of wheat in 2012 is 188.833 million USD then the substitution seaweed into 11.32998 million USD, the trade balance and then climbed into -11.32998 million

USD from the previous -1659 million USD. Figures imports of wheat in 2013 is 82.074 million USD then the substitution seaweed becomes 4.92444 million USD, the trade balance and then climbed into -4.92444 million USD from the previous -4076.9 million USD. Substitution seaweed based on the results of these calculations have a tremendous impact on the whole economy. Production instant noodle who made by local ingredients besides to reduce imports can provide the market for fishermen seaweed in Indonesia. Advantage of substitution seaweed were then can be used as subsidies for noodle producers to get the cheap raw materials. Productivity of seaweed market can also be a national program to build independence food in Indonesia.

CONCLUSION

Instant noodle consumption rate in Indonesia is very high and at the second position in the world. High consumption of instant noodles also contribute to the number of imports of wheat flour in Indonesia. Substitution seaweed at a maximum level of 30% can reduce the number of imports in Indonesia. The use of seaweed as an ingredient substitution is an effort to increase the independence of fishermen seaweed that eventually became national independence.

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