SUMMARY

GITA KHAERUNISA INDAHSARI. Strategy to Enhance Competitiveness of Indonesia’s Bioethanol Industry. Under supervision of ARIEF DARYANTO, ENDANG GUMBIRA-SA’ID, RUDI WIBOWO.

Nowadays, climate change due to the result of industrial and transportation burning have been much of a debate. Indonesia had also declared emission reduction target of 26 percent from the year 2009. Considering that Indonesia, now a net importer, will continue to increase the demand for fuel in the future, depending on imported fuel makes Indonesia vulnerable to the changes in the volatility but increasing price of world oil. Thus, alternative fuels to fossil burning which is eco-friendly, is required to sustain the environment while fulfilling the need of energy source. In this case, biofuels such as bioethanol and biodiesel are considered as the best alternative. Thus the Indonesian government has realized how important bioethanol is as an alternative energy, related to numerous roadmaps, programs and policies to develop this industry, however, the bioethanol industry in Indonesia did not develop well.

The purposes of this study are related to understanding the existing conditions of the bioethanol industry in Indonesia; identifying the inhibiting and supporting factors and formulating the strategy to enhance the competitiveness of bioethanol in Indonesia. This study covers the national scope of the current condition of the bioethanol industry in Indonesia, by combining several methods which are Exponential Pairwise Comparison (EPC) method, Diamond Porter Model, Cluster and Analytic Network Process (ANP) in order to find the best strategy to improve the competitiveness of bioethanol industry in Indonesia.

The study results findings are that the Indonesian bioethanol industry competitiveness can be divided into production problems, market problems and government problems, where these problems are affect each other. Unavailability of bioethanol due to difficulties of the raw materials availability, related to the low price placed by buyer and governments’ problem were the major obstacles in developing
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The Indonesian bioethanol Diamond Porter Model shows that factors such as government inconsistency and miscoordination, low producer support and incentives; and uncertain market prices received by producers as the major obstacles for developing the industry. The Indonesian bioethanol Diamond Porter Model also provides factors that could support the development of the industry such as high demand for fuel, potential land and raw material types, low cost labor and easy technology bioethanol first generation that could be used for small scale units. The bioethanol industry competitiveness can also be developed with cluster, however, due to factors related to cluster establishment, the bioethanol industry in Indonesia may developed better for small scale sizes.

This study concludes that for the bioethanol industry, sugarcane, cassava and corn have been considered as potential raw materials for bioethanol product, sugarcane would then be the most potential raw materials for bioethanol product and developed better for small scale sizes. Utilization of land and cluster system were considered the best solution to solve for the production and availability of bioethanol raw material problems. Thus for the production and availability of bioethanol raw material problems, the world low oil price would cause major market problem, fair price system and the world low oil price would cause major problems in developing the industry, thus it was suggested that the government should give producers fair price and also support in order to be more competitive in the bioethanol industry.

Overall, even if Brazil and the USA have been successfully develop their own industry, Policy and strategy should be aimed and focus on resolving these problems before developing any further target. The success of bioethanol programs in other countries related to their policy and strategy could be used as a benchmark for our own industry.
whole stakeholders in the industry, then the competitiveness of the Indonesian bioethanol industry could be encouraged.

As for the government problems, the research shows that even though the government has many regulations but the government is still considered unaware on which regulations should be applied appropriately and miscoordination between government departments had been major problems. Thus, the solution should be to increase coordination and being more aware on how to implement the policy. A new blueprint should be the foundation for the bioethanol competitive industry along with the regulations to support local producers. The tendency of the government to solve the problem in the short run, such as importing bioethanol from other countries, in the long run will cause major problems. The strategy that should be applied is to involve all the stakeholders to work together to increase the competitiveness of the bioethanol industry and also by creating a cluster strategy, which could support the system.

Government need to coordinate all stakeholders to work together to develop a new bioethanol competitiveness blue print and also support more on local producers. Cluster should also be considered to developed in order to increase bioethanol competitiveness and further studies should be conducted on factors affecting cluster concentration development, an example would be by MIFEE (Merauke Integrated Food and Energy Estate). There should be further studies that could identify more in detail on other factors, such as financial system to support the bioethanol industry.