SUMMARY

ADHIATMA ANANTA NUGRAHA. 115040100111076. Technical Efficiency of Factors in Soybean Farming in Glagahagung Villages, Purwoharjo Distric, Banyuwangi Regency, East Java. Under Guidance of Prof. Dr. Ir. Nuhfil Hanani, AR. MS.

Soybean is one of the essential food commodities in Indonesia. Soybean become a raw material for making tofu and tempe in Indonesia. Tofu and tempe are a source of protein that is easily obtained with a high level of demand in Indonesia. According to BPS data in 2013 the level of tofu consumption per capita per week out in Indonesia was 0.135 kg and 0.136 kg for tempe consumption, while the consumption level of fresh fish and shrimp was 0.236 kg. This is cause a high demand for soybeans as well. High demand soybean is not matched with the national soybean production. Based on data from the Ministry of Agriculture (2014), national soybean production in 2013 amounted to 808 000 tons. This value is far below the domestic soybean consumption that reached 2.199 million tons worth, because of that, in 2013 the government imported 1.399 million tons of soybean in order to fulfill the national consumption.

Import policy will reduce the farmer's passion to plant soybeans because of the quality of local soybean that under the quality of imported soybean and this matter will make Indonesia always dependent on imported soybeans. One effort to reduce imports is to increase the national soybean production. Increased national soybean production should be followed by an increase in the efficiency of soybean farmers in Indonesia. One of the place that can produce big amount of soybean in Indonesia is Banyuwangi. District of Purwoharjo Glagahagung village is the largest soybean contributor to Banyuwangi. It is seen from the high productivity of soybean in the District in the amount of 21.81 Purwoharjo kui / ha. The high productivity is such a potential to be developed, but is still below the productivity of soybean in other tropical countries such as Brazil and Argentina, in the amount of 27 kui / ha for Argentina and 30.5 kui / ha for Brazil. Increased technical efficiency becomes very necessary to increase productivity so that the overall production will also increase.

The method of determining location on the study conducted purposively. The number of respondents in this study are 44 soybean farmers. The study was conducted by collecting primary data in the form of interviews with soybean farmers. This study uses stochastic frontier approach with variables analyzed were land, seed, fertilizer, pesticides and labor. In addition, socio-economic factors such as the size of land ownership, age of farmers, farmers pursued formal education, the number of farm families and the activity of farmers in farmer community will be analyzed how much all of that factors can influence the efficiency that can be achieved by farmers. The influence of socioeconomic factors on technical efficiency will be analyzed using dummy variable regression. Activeness of farmers in farmer community are expected to affect the value of the technical efficiency of farmers, because by following a farmers community, farmers will get some information about the farm that is expected to improve the efficiency of farmers.

Based on the results of stochastic frontier production function analysis, show that several variables such as land, seeds and pesticides significantly affect to soybean production in the village Glagahagung. While other factors such as labor and fertilizer had no significant effect on soybean production in the village of Glagahagung. Sigma squared value of 0.085 which is greater than 0 proving that there are significant technical inefficiency in the model, the gamma value of 0.949 indicates that a lot of variation in the composite error term caused by the inefficiency component,while the LR value of 2.5 which is smaller than the critical value means that H0 is accepted or in other words, not all farmers achieve 100% efficient farming.

The average value of technical efficiency of farmers respondents in Glagahagung village amounted to 0.809 with a minimum value is 0.527 and the maximum value is equal to 0.967. Social economic factors that affect the technical efficiency if farmers are the formal education of farmers, the number of families and the participation of farmers in farmers community, while another factors like the wide of field that owned by farmer and age of farmers did not affect the technical efficiency. The value of R square is 0.439 indicates many other factors outside the model that can affect the value of the technical efficiency of farmers.

Key Words: Soybean, Technical Efficiency, Stochastic Frontier, Dummy Variable Regression