

ABSTRACT

Today's in era of globalization, the need for alternative energy is essential, therefore, many countries are beginning to develop alternative energy sources that renewable and relatively easy to produce, which is bioethanol. Bioethanol is a fermented starch's liquid derived from agricultural products that can be used as a substitute for fuel oil. One of some alternative that can be used to utilize starch is cassava. The problem is, the current selling price of cassava is controlled by the factories who processing the cassava and is relative low. Therefore, the establishment of cassava's Corporate farming PT. XYZ in Tanjungsari village attempt to increase the value added of cassava by analyzing the feasibility of establishment a bioethanol plant to process cassava from farmers production. In this research can get the conclusion whether corporate farming and establishment bioethanol plant is more feasible than corporate farming alone.

In terms of market aspects, the market is assured because PT. XYZ sells bioethanol to PT. Pertamina to help supply a national insufficient of bioethanol. From the technical aspect, the location of the plant is also located in the village of Tanjung Sari. Production equipment and the amount of labor is calculated based on the production capacity of the plant which is dependent on the amount cassava of corporate farming. From the environmental aspect, with a good waste system, there is no negative impact on the surrounding environment.

For the analysis of the financial aspects made for a period of 5 years. Calculation shows $NPV = Rp1.776.498.741$, $IRR = 33,11\%$ dan $PBP = 3,553$ years. By considering from the results of the calculation of NPV and IRR obtained financial establishment of corporate farming is greater than establishment of corporate farming and bioethanol plant. So, the final decision is realizing business of establishment corporate farming PT.XYZ only.

Key words : *Feasibility Study, NPV, IRR, PBP, Establishment of corporate farming and bioethanol plant PT.XYZ*