

Supatjaree Panpranot 2010: The Feasibility Analysis of Investment on Biodiesel (Fatty Acid Methyl Ester-B100) Plant in Chon Buri Province. Master of Economics (Business Economics) Major Field: Business Economics, Department of Economics. Thesis Advisor: Ms. Wuthiya Saraithong, Ph.D. 156 pages.

The objective of this study is to analyze the trend of palm oil products, the feasibility and the sensitivity of investing on biodiesel (Fatty Acid Methyl Ester-B100) plant in Chon Buri province and decide properly strategy. This study mainly focuses on forecasting palm oil products in Chon Buri province, testing switching value, SWOT analysis, analyzing market and technical aspects. The instruments used for financial analysis are Pay Back Period, Net Present Value (NPV), Benefit-Cost Ratio (BCR), Internal Rate of Return (IRR).

The result shows that palm oil products in Chon Buri province can generate total raw palm oil 52,284.55 tons/year, about 5,793.13 tons/year of which can produce biodiesel 5,735,198.70 liter/year or 17,379.39 liter/day. Therefore, the study determines the capacity of biodiesel (Fatty Acid Methyl Ester-B100) in Chon Buri province at the level of 15,000 liter/day, with 330 workdays per year. The finding shows that production capacity and demand for biodiesel (Fatty Acid Methyl Ester-B100) increased, but Thai production potential is not enough for domestic demand. Moreover financial analysis which assume ten-year project life during 2009-2018 and discount rate at 7.175%, shows NPV of 6,533,600 baht, BCR of 1.007, IRR of 10.60%, with a payback period of 8 years. These can lead to conclude that this project is feasible. The result from variance in cost and benefit can indicate that if cost is increased more over than 0.71% or benefit is decreased more over than 0.71%, it will make the project risky to the loss. So the optimal to reduce risk is the control of production process to create the effectiveness and efficiency. Furthermore it should study, adapt and develop technology for biodiesel to be produced from various raw materials in order to prevent risks from high prices or material shortages.

The recommendation of feasibility studies is that entrepreneurs should select the location based on logistics factor. Involved agencies should set up plan scope to solve oil palm problem in order to increase oil palm capacity and products.

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Thesis Advisor's signature