

Athiphot Janklin 2007: An Analysis of Investment of Bio-Diesel Nozzle Installation of PTT Gas Station. Master of Arts (Agribusiness), Major Field: Agribusiness, Department of Agricultural and Resource Economics. Thesis Advisor: Assistant Professor Nongnooch Poramacom, Ph.D. 161 pages.

The objectives of this study were to analyze the return on investment of bio-diesel nozzle installation in gas station of PTT company limited (public), to assess financial risks of the investment due to changes of fuel costs, sales volumes of fuels, prices of fuels, interest rate and to derived a business plan for investors.

The result of the return of investment analysis showed that the gas station investment was commercially worthiness as the present value (NPV), benefit cost ratio (BCR), and the internal rate of return (IRR) of investment were 21,650,018 baht, 1.0076 and 23.36%, respectively. The results of the sensitivity analysis indicated that the gas station investment was financial worthiness if the cost of diesel and bio-diesel were increased by 0.46% or the sales volumes of diesel and bio-diesel were decreased by 7%. When the sales volumes of diesel was increased by 0.7%, bio-diesel would decrease by 158%. The result showed that the investment viability of bio-diesel of nozzle installation in gas station was very sensitive to changes in the cost and sales volumes of fuels. Therefore, the interested investors of bio-diesel of nozzle installation in gas station should concern on the investment risks incurred by cost increased or sales volumes of fuels decreased and prepare a good business plan to handle those risks.

From the result of SWOT analysis, the appropriate strategies were creating reliability on bio-diesel by using advertisement channels, creating service differentiated and continuous improvement on bio-diesel quality and also increasing of service area in order to support increasing of future demand.

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Thesis Advisor's signature

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