

Executive Summary

Rice production had been increasing over the year since 2011. However, from the milling of paddy, a lot of useful byproducts, such as rice husks are treated as waste. Even though, rice husk has some impressive portions of silica. Silica is an essential micronutrient for the plant health especially in paddy.

PT Silika Teknologi Indonesia is one of fertilizer manufacturers in Indonesia that produces potassium silicate fertilizer from rice husk under the brand: Siltek. Siltek can be used to improve paddy's growth, strengthen the stalks and stems, increase resistance to penetration by *hama wereng coklat* which will affect in increasing rice production. Siltek itself is a result from extracting rice husk using potassium hydroxide and packaged in a 500ml high-density polyethylene (HDPE) bottle.

The company ensures the customer satisfaction by focusing on quality, dependability and cost in the production process. Its headquarter and main factory is located in Kawasan Industri Mitra, Karawang Timur. The factory produced Siltek massively with capacity-average strategy in response to meet the changing demand in the market. PT Silika Teknologi Indonesia uses EOQ method to manage its supply for each raw material. For the finished product, quality assurance and quality control is implemented by applying *safety* stock and QC checking system to guarantee and also maintain the product's quality.

The target market is farmers who have rice field more than 1 Hectare and income more than 1.5 million rupiahs per month in average. Company is also focusing on the active member of *Gapoktan* (Farmers Group) located in West Java, Banten. Moreover, farmers who have the medium to high level of adopting new agriculture technology is preferred. Therefore, company strongly emphasises in demonstration plot as the marketing approach to accommodate the farmers' behavior in trying the new technology. The word-of-mouth and advocacy are the most effective form to persuade the other farmers to use and buy the products. Company will expand its business to reach the customers in East Java, Central Java, and Lampung during the second year until the fifth year.

The human resources department plays an important role in corporate management. To compete in the fertilizer industry, we recruit employees for the

top level management level since the preoperational period. The total employee of Siltek during pre-operational period will consist of 34 employees and will grow up to 305 employees at the fifth year.

Financial projection, financial analysis and what-if scenario (pessimist, most likely and optimist) are conducted to determine the feasibility of this business. The business holds a medium risk and expected to have payback period in 5.4 years, with internal rate of return 50.71% and NPV IDR 208.2 billions.

