ABSTRACT

PT XYZ is a company engaged in the food processing industry with tofu production located in Tangerang Regency, Banten. PT XYZ has increased sales which also means that there is an increase in customer demand for tofu products. However, the increase in product demand has become a new challenge in the company's operations at PT XYZ. The challenge is seen in the constraints of the company that cannot meet customer demand due to increased customer demand not matched by an increase in production at the company. On the other hand, the production process at PT XYZ has already exceeded the working hour limit because the capacity of the milling machine is not sufficient where there is only one machine while the condition of the grinding machine has often overheated. So the company management of PT XYZ plans to increase production capacity by purchasing a new machine for milling machines. Therefore, a feasibility analysis research was conducted by analyzing market aspects, technical aspects, and financial aspects using three feasibility methods namely NPV, IRR, and PBP. After the calculation, the eligability analysis value is obtained NPV of Rp 4.824.298.738, IRR of 34,72%, and PBP for 3,85 years. Then the result of the addition of the milling machine in PT XYZ is said to be reasonable. Once the results of the added of the grinding machine are known to be considered reasonable, then an incremental cost analysis is performed to compare between existing alternatives and alternatives of adding the grilling machine. After the calculation, we obtained a ΔROR of 98% with a MARR of 11,01%. Thus it can be concluded that the chosen alternative is the alternative with the greatest investment value, i.e. the addition of the milling machine. The sensitivity value for the increase in the cost of procurement of raw materials was 8,42% and the sensitivities for the decrease in the price of sale of the product was 6,40%.

Keywords: Feasibility Analysis, Incremental Cost Analysis, NPV, IRR, PBP