`

ABSTRACT

Hydroponic technology is one of the technologies that are useful for supporting the development of vegetable farming at this time. There are several hydroponic technology methods that can be carried out, such as the NFT method and the DFT method. This study aims to choose the optimal hydroponic technology between the NFT method and the DFT method based on 3 aspects, namely business processes, productivity, and finance. Data collection was carried out by observation in two hydroponic gardens which were the object of research by conducting interviews and several literature studies. The final results of the business process aspects obtained the efficiency of the hydroponic technology NFT method by 75.52% and DFT method by 72.08%. The final result of the productivity aspect is obtained from the productivity of kg / m² of hydroponic technology NFT method of 7.64 kg / m² and DFT method of 6.93 kg / m², the life rate of NFT method by 98% and DFT method by 85%, the level of nutritional use of the NFT method is 0.213 kg and the 0.02 kg DFT method. The final financial results were obtained from the total investment costs of the hydroponic technology NFT method amounting to Rp246,596,100 and the DFT method amounting to Rp222,696,000, the total operational costs of the NFT method amounting to Rp238,364,000 and the DFT method amounting to Rp212,268,000, the total revenue of the NFT method amounting to Rp351, 825,600 and DFT method amounting to Rp312,871,800, HPP / Kg NFT method amounting to Rp20,841 and DFT method amounting to Rp20,590, Profit loss from NFT method amounting to Rp77,573,184 and DFT method amounting to Rp64,908,812, NPV NFT method amounting to Rp130,988,554 and the DFT method amounted to Rp.106,600,290, the PBP method of the NFT method was 2.27 years and the DFT method was 2.30 years, the IRR of the NFT method was 35.82% and the DFT method was 33.70%, the BCR of the NFT method was 1,053 and the DFT method was 1,047. Based on the comparison of business processes, productivity and finance, the optimal hydroponic technology is the NFT method hydroponic technology.

Keywords: Comparison, Optimal, Hydroponic Technology, NFT, DFT, Business Processes, Productivity, Financial