

ABSTRACT

Indonesia's climate change is a crucial problem because Indonesia is an agricultural country whose agricultural sector is still dependent on and easily affected by changes in temperature and weather. In addition, the number of young Indonesian farmers is decreasing. Therefore, we need machines that can speed up the harvest period and increase farmer productivity. The Autonomous Tractor is an innovative machine that is expected to be more environmentally friendly and faster in cultivating land and saves more on land processing costs compared to using human labor to cultivate land. The results of this research are to determine the cost of mass production of an Autonomous Tractor so that it is feasible to develop, so to achieve the technical specifications it requires IDR 44,092,800 and a minimum production quantity of 720 units a year. The results of marketing studies on similar products show that the ideal price for the product is Rp. 68.441.475. Based on economic indicators, the cost of production and selling prices have reached the economic indicators, namely $NPV = IDR\ 124.317.239.706$, $IRR > MARR$, namely 79,34%. and the Payback Period is 2 year.

Keywords: *Autonomous tractor, Agriculture, Feasibility Analysis, innovation*