

ABSTRACT

Indonesia is a developing country with high population growth, the increase in population causes a lot of influence on aspects of human life, for example, the increased use of transportation in the form of motorbikes. Telkom University Surabaya is one of the campuses that produces Electric Motorbikes, but there is no investment feasibility so it is necessary to hold an investment feasibility of new products that have been made. This research will examine whether the Electric Motorcycle innovation product is feasible both technically, marketing, and economically based on the indicators of Net Present Value (NPV), Internal Rate of Return (IRR), Payback Period and Sensitivity Analysis. The objectives of this study are to measure the feasibility of Electric Motorcycle products, to describe the results of feasibility on Motorcycles, and to determine the ideal price of Electric Motorcycles that are feasible for mass production. The results of this study are that in order for Electric Motorcycles to be feasible to be developed for mass production, it requires a cost of goods of Rp.16,174,000 and a minimum production quantity of 33 units to achieve technical specifications. The results of marketing studies on similar products, the ideal price of this product is Rp. 29,932,106 so as not to exceed the price of similar competitor products of Rp. 27,990,000 Based on economic indicators, the cost of production and selling price have reached the economic indicator indicators, namely $NPV = 0$, $IRR = MARR$, and Payback Period for 5 years.

Keywords: *Electric Motorcycle, Cost of Production, Net Present Value (NPV), Internal Rate of Return (IRR), Payback Period (PP)*