

ABSTRACT

Indonesia, as an agrarian country with fertile soil, has great potential in the agricultural sector, which plays an important role in national development. However, limited land, especially in urban areas, hinders agricultural activities. To address this issue, urban farming has become an innovative solution. Telkom University Surabaya has developed an IoT module for urban farming that uses technology to support urban farming cultivation. This study evaluates the feasibility of producing the IoT module for urban farming. The results show that an investment of Rp 37,229,859,605 and a cost of goods sold (COGS) of Rp 44,160,110 are required to achieve the desired technical specifications, with a minimum production of 1,038 units per year. Marketing analysis indicates that the ideal product price is Rp 72,864,182. Based on economic analysis, this production projection meets economic indicators with an NPV of Rp 7,083,945,398, an IRR of 23%, and a Payback Period of 2 years, 8 month, and 12 days.

Keywords— IoT, Module, Urban, Farming, Feasibility, Analysis