

ABSTRACT

Indonesia is starting to bloom with the deployment of 5G networks. Several telecommunications operators have licenses and frequency spectrum to deploy 5G networks in Indonesia. However, accelerating the deployment of a 5G network will take a long time. The cost of deploying infrastructure is not cheap, and getting permits to build infrastructure in an area is not easy. 5G networks have the opportunity to present a new business model, namely micro-operators. Micro operators are deploying 5G services outside the deployment and providers of Mobile Network Operators (MNO). Implementing micro operators can accelerate the deployment of 5G networks and equitable connectivity. Micro operators are still being questioned about their involvement and have nothing to do with the Indonesian market.

The study analyzed the feasibility status of the scenario if it was applied sustainably. This study's main topic is technical, economic, and regulatory studies. These three considerations provide additional information on the analysis of the placement of micro operators in the Jababeka industrial area using the mmWave 28 GHz frequency.

The technical study results show that the capacity planning for the estimated amount of gNB to be used shows an upward trend of 56.66%. Meanwhile, the coverage planning shows the amount of gNB, which varies according to the scenario. For the economic assessment, scenario 2 can generate better profits than scenarios 1 and 3. As well as from a micro-regulation study, operators can take advantage of Law Number 11 of 2020 concerning Job Creation and its derivative regulations in implementing its implementation.

Keywords: Micro operator, mmWave, Regulation, Industrial Area.