

ABSTRACT

The challenge in telecommunications operations today is the deployment of 5G technology in various developed countries. The International Telecommunications Union – Radiocommunication Sector (ITU-R) has defined 3 main categories of 5G use cases, namely: Enhanced Mobile Broadband (eMBB), Massive Machine-Type Communications (mMTC), Ultra-Reliable and Low Latency Communications (URLLC). The existence of the 5G use case model encourages the emergence of business models or collaborations that can be carried out by telecommunication providers. In 5G services, there is a form of collaboration, namely B2B2X, where "X" is a company (Business or B), Government (Government or G), or direct user (Customer or C). From the results of the implementation of the 5G business model in several countries, it can be seen that there are different policy strategies and the roles of the Government and/or Regulators in encouraging the implementation of 5G in their countries, and an overview of the challenges and impacts is obtained. This research is focused on the implementation of network sharing in the deployment of 5G in the New Capital City (IKN) following the provisions of the applicable regulations in Indonesia.

This research was conducted with a techno-economic approach using Cost-Benefit Analysis for the implementation of active network sharing or in other terms called MORAN (Multi-Operator Radio Access Network), where several operators share RAN components without sharing spectrum. The results of this study obtained the efficiency of capital expenditure (CAPEX) and operational expenditure (OPEX) of 30%-40% in the application of active network sharing. So that the application of network sharing in the deployment of 5G technology to run well requires policies and/or technical guidelines in its application to support the principle of fair business competition.

Keywords: 5G, business model, IKN, network sharing, policy