

ABSTRACT

Surabaya is the city of heroes and the capital of East Java. As the capital of East Java, Surabaya has shopping malls with many visitors. This requires the use of 5G networks. 5G NR technology also has regulations that are set in the Minister of Communication and Information Technology Regulation Number 17 of 2005. The regulation prevents the sharing of frequencies between telecommunications companies.

Band N258 focuses on large data transfer and low latency is very suitable for commercial areas in Surabaya such as shopping malls for fast and efficient transactions. The focus of this research is the license cost analysis for 5G NR in 26 GHz frequency. In this research, ISR and two variables I_b and I_p will be parameters of the license fee (BHP), which will be adjusted to the needs of the frequency.

This research on coverage obtained 2 sites for Tunjungan Plaza, 16 sites for Pakuwon Mall, and 6 sites for Royal Plaza. While the result of capacity is 5 sites for Tunjungan Plaza, 4 sites for Pakuwon Mall, and 34 sites for Royal Plaza. The results of license fee calculation use 400 MHz bandwidth as the highest reference from band N258 or 26 GHz at a price of IDR116,612,564. The results of this effectiveness analysis are based on the financial ability of PT Smartfren, Tbk to pay 14.5% of revenue and get the optimum point variable I_b of Band N258 is 0.288 at 400 MHz bandwidth with a price of IDR558,066.16. With this, the license fee incurred by the operator with site 24 is IDR 13,393,587,948.

Keywords: License Fee, Frequency, 5G band N258, Surabaya