

Penentuan Nilai Keekonomian Pita Frekuensi Radio 700 MHz Menggunakan Metode Discounted Cash Flow (DCF) Dan Cost Reduction (CR) = Determination of Economic Value of 700 MHz Radio Frequency Band Using Discounted Cash Flow (DCF) and Cost Reduction (CR) Methods

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Abstrak

Salah satu kunci dalam penggelaran jaringan 5G adalah tersedianya spektrum frekuensi radio. Namun begitu, spektrum frekuensi radio merupakan sumber daya yang jumlahnya terbatas dan harus dioptimalkan penggunaannya. Salah satu kandidat pita frekuensi 5G low band adalah pita frekuensi radio 700 MHz. Dengan rencana penambahan pita frekuensi radio, tentu akan menambah beban BHP IPFR yang harus dibayarkan oleh operator seluler. Sehingga, perlu ditentukan nilai keekonomian pita frekuensi radio 700 MHz yang berada pada angka optimal (equilibrium). Dalam penentuan nilai keekonomian pita frekuensi radio 700 MHz ini menggunakan metode Discounted Cash Flow (DCF) dan Cost Reduction (CR). Penelitian mengenai penentuan nilai keekonomian pita frekuensi untuk kandidat pita frekuensi 5G di Indonesia juga pernah dilakukan dengan menggunakan pendekatan teknik shadow pricing dan pendekatan menggunakan formula $BHP\ IPFR = N \times K \times I \times C \times B$. Dari hasil perhitungan, nilai keekonomian pita frekuensi radio 700 MHz menggunakan metode Discounted Cash Flow (DCF) skenario BW 90 MHz adalah sebesar Rp64,08 Miliar. Nilai tersebut mendekati nilai keekonomian pita frekuensi 900 MHz saat ini sebesar Rp63,36 Miliar. Sementara nilai keekonomian pita frekuensi radio 700 MHz dengan metode Cost Reduction (CR) untuk industri dengan BW 90 MHz adalah sebesar Rp36,81 Miliar. Nilai keekonomian tersebut mendekati nilai keekonomian pita frekuensi 800 MHz sebesar Rp36,68 Miliar. Selanjutnya dilakukan analisis penambahan beban BHP IPFR, perbandingan nilai keekonomian pita frekuensi radio terhadap pendapatan, dan perbandingan nilai keekonomian pita frekuensi radio terhadap EBITDA. Pengenaan nilai keekonomian pita frekuensi radio 700 MHz ditinjau dari kondisi beban BHP IPFR menggunakan metode DCF dan CR masih memungkinkan bagi Operator A dan Operator C untuk mampu mengoptimalkan penggunaan spektrum frekuensi dan memiliki kemampuan untuk mewujudkan industri yang berdaya saing. Namun sebaliknya, untuk Operator B, Operator E dan Operator F diprediksi mengalami kesulitan untuk mampu mengoptimalkan penggunaan spektrum frekuensi dan memiliki kemampuan untuk mewujudkan industri yang berdaya saing.

.....One of the keys to deploying a 5G network is the availability of a radio frequency spectrum. However, the radio frequency spectrum is a limited resource and should be used optimized. One of the candidates for the 5G low band frequency band is the 700 MHz radio frequency band. The plan to add radio frequency bands will undoubtedly add to the spectrum fee burden that cellular operators must pay. Thus, it is necessary to determine the economic value of the 700 MHz radio frequency band, which is at the optimal value (equilibrium). The Government's policy in the valuation of radio frequency bands can optimize the use of frequency spectrum in Indonesia and realizing a competitive industry for delivering 5G technology services in Indonesia with the economic value approach of frequency bands and the business potential of telecommunications operations in Indonesia. Calculating this radio frequency band uses Discounted Cash

Flow (DCF) and Cost Reduction (CR) methods. The 700 MHz frequency band valuation had researched before using the shadow pricing method and BHP IPFR $N \times K \times I \times C \times B$ formulas. From the calculation results, the economic value of the 700 MHz radio frequency band using the Discounted Cash Flow (DCF) method, scenario the BW 90 MHz scenario is IDR 64.08 billion. This valuation is close to the current economic value of the 900 MHz frequency band IDR 63.36 billion. Meanwhile, the valuation of the 700 MHz radio frequency band using the Cost Reduction (CR) method for industries with a BW of 90 MHz is IDR 36.81 billion. The valuation is close to the 800 MHz frequency band of IDR 36.68 billion. Furthermore, analyzing the addition of spectrum fee expenses, comparing the valuation of radio frequency bands to revenue, and comparing the valuation of radio frequency bands to EBITDA. Operator A and operator C can optimize the use of the frequency spectrum and could create a competitive industry. On the other hand, Operator B, Operator E, and Operator F will predict experiencing difficulties in optimizing the use of the frequency spectrum and having the ability to create a competitive industry.