

## ABSTRACT

The explosion of bandwidth requirement which is resulted by growth of data traffic fastly like internet, intranet, and multimedia application push the happening of evolution which enough quickly beside technology of transport network which fastly enter the Gbit / s period even Tbit / s period. Innovation in this transport area is applied at SDH technology which playing a part in NGN (*Next Generation Network*) concept, and able to delivery a big bandwidth, thus its reliability which expected also high. Therefor, it required a great system of protection in network transmission.

In this research studied technometric model in measuring the capability of SDH Northern Route technology at PT. Telkom specially Division of Long Distance Representative Office Bandung, Subdiv SKSO & Mux.

Technometric is a model developed by UN-ESCAP. Technology consists of four components those are Technoware (Terminal Multiplexer, Add Drop Multiplexer, Digital Cross Connect and Regenerator), Humanware (Kadin, Officer-2 and officer-3), Inforware and Orgaware. Based on the assessment of four main technology components, it shows that TCC (*Technology of Coeffisient Contribution*) of SDH Northern Route is 0.691 of which Inforware has the highest contribution into total transformation process from input into output is 0.986. The second high contribution is Orgaware, that is 0.955, then the third high contribution is Humanware, that is 0.923 and Technoware is 0.795. While in contribution intensity, Technoware has the highest rank, that is 0.487, then Humanware is 0.276, Orgaware is 0.177, and Inforware is 0.060.

Based on the research results and the rank of SDH Northern Route technology coefficient contribution, Therefore PT.Telkom specially Division of Long Distance Representative Office Bandung, Subdiv SKSO & Mux should bring an effort to increase the technology contribution coefficient which based on the highest of change influence and the result of maximum value at existing condition which refers to the improvement priority recommendation, those are Technoware, Humanware, Orgaware and Inforware. The efforts also concern balancing contribution each component of technology so that reached by the optimal contribution.

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