

ABSTRACT

Transportation Economic Feasibility Analysis on the Application of Electronic Road Pricing (ERP) System in DKI Jakarta (Case Study: Medan Merdeka Barat Street, Central Jakarta)

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Electronic Road Pricing (ERP) is an effort used to reduce vehicle volume to overcome congestion cases in urban areas. Electronic Road Pricing (ERP) is a tariff charged to users of private transportation carried out electronically in certain areas or restricted areas. This system is expected to make private vehicle users choose to move to public transportation or use other alternative roads. This research uses investment assessment criteria in the form of Benefit Cost Ratio (BCR), Net Present Value (NPV), Internal Rate of Return (IRR) to determine the economic and financial feasibility of the Electronic Road Pricing (ERP) system case study of Medan Merdeka Barat street, Central Jakarta. The data used in this study are secondary data in the form of vehicle classification data, tariff data, and construction cost assumptions based on data from the DKI Jakarta Transportation Office. Based on the analysis and calculations that have been carried out, the application of Electronic Road Pricing (ERP) on Medan Merdeka Barat street is economically and financially beneficial. This is indicated by the Benefit Cost Ratio (BCR) value of 1.01, Net Present Value (NPV) of Rp 522.976.514.958 and Internal Rate of Return (IRR) of 95%.

Keywords: Economic Feasibility of Transportation, Electronic Road Pricing, Benefit Cost Ratio, Net Present Value, Internal Rate of Return.

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