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APPROPRIATENESS SENSITIVITY ANALYSIS OF HIGH SPEED RAIL PROJECT

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ABSTRACT

High Speed Rail (HSR) is currently regarded as one of the most significant technological breakthrough in passenger transportation. Compare to a conventional train, a high speed train will shorten time travel. This study aims to evaluate the viability of high speed rail project based on financial analysis. The parameter used to analyse the financial viability are NPV, BCR, IRR, PP and Break Even Traffic Volume. The analyses also includes sensitivity analysis with a variety of discount rate, annual income and investment cost value.

The result of financial viability analysis shows that the project does not meet the financial requirements. It is indicated by negative NPV value, IRR value of 0,27 to 2,28 smaller than the discount rate and PP value much longer than the concession period which are of 50 years. The result of Break Even Traffic Volume shows that the range of total demand number to reach NPV=0 are between 11,27 millions to 11,58 millions. The Number is very much greater than total passenger number of Argo Parahiyangan train in the year 2018 that is 4,38 millions/ year.

Even though based on the financial viability analysis the High speed rail Jakarta-Bandung project is not be feasible. However, based on the economic and social benefits the project is crucial to solve traffic congestion, reduce the pollution rate, and save the time travel.

Keywords :High-Speed Train, financial analysis, financial feasibility parameters

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