

PREFACE

This thesis has a focus on the LTE network enhancement for passengers of the Jakarta-Surabaya High Speed Railway as a target of a techno-economic analysis. Internet services are nowadays a basic need for travelers which poses a challenge that needs to be addressed. The study assesses the present scenario with an aim of attending to the various technical and economic aspects of providing LTE services along the railway corridor. The objective is to enhance the productivity and satisfaction of passengers while traveling by train.

This study looks into the LTE network infrastructure and services available, determining the features for coverage, quality of service, and capacity for their optimization. It also analyzes the infrastructural improvement costs along with the anticipated value for the passengers and operators of the service. The study takes into account the prospective effectiveness of the proposed alternatives.

As noted in the mapping sections, policymakers, engineers, and telecommunications companies should find the conclusions and recommendations in this thesis particularly relevant concerning their interests and responsibilities in the Jakarta-Surabaya High-Speed Railway project. Stakeholders are equipped with knowledge regarding LTE deployment economics and engineering will enable them to make decisions that will boost railway telecommunications and improve the railway experience. This research promotes developing an effective and well-integrated transportation system in Indonesia.

Warm Regards

Mega Ayu Indirani