

## ABSTRACT

### IMPLEMENTATION OF KIMBALL BASED OLAP TO ENHANCE DATA ANALYSIS EFFICIENCY AT PERUM DAMRI LAMPUNG BRANCH

Oleh

MURNI CAHNIA

[Murnycahnia06@gmail.com](mailto:Murnycahnia06@gmail.com)

The Lampung Branch of Perum DAMRI faced challenges in analyzing route-specific revenue, driver performance, and fleet optimization based on mileage and income. Operational transaction data had previously been stored in a database without being effectively analyzed, which hindered data-driven decision-making. This study aimed to implement Business Intelligence (BI) technology using Online Analytical Processing (OLAP), following the Kimball methodology, to improve the efficiency of operational data analysis at DAMRI. The research methods included data extraction, transformation, and loading (ETL) using Pentaho; data storage in a MySQL-based data warehouse; and OLAP analysis and data visualization using Tableau. The findings demonstrated that OLAP implementation facilitated the identification of operational trends such as travel patterns, passenger volumes, revenue fluctuations, and the performance of both the fleet and drivers. The resulting interactive dashboard enabled managers to make faster and more accurate decisions, thereby improving operational efficiency and increasing company revenue.

***Key Words: OLAP, Business Intelligence, Data Warehouse, Kimball Methodology***

