

## **ABSTRACT**

### **EFFECT OF TRAFFIC COUNT DATA AND LOCATION OF ESTIMATED ORIGIN DESTINATION MATRIX BASED ON TRAFFIC FLOW**

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Traffic count is one of important factor impact of quality of Estimated O-D Matrix with unconventional methods based on data traffic count. The more data traffic count using in process, will estimate the better OD matrix, but it spend a lot of times, effort, and cost. It takes a data processing efficiency but still yields an estimate of O-D Matrix with a good accuracy. This efficiency can be done by finding the amount of data and point the exact location of traffic count within the scope of the study area, making it more effective in terms of time and costs but still produce an optimal estimate of O-D Matrix in the level of accuracy.

The use of 42 traffic count produce estimate of O-D Matrix model (100%) with R-square is 0,3114 for the current level. Scenarios is done by selecting roads with the lowest flow rate, 2 data for each scenario. Selection of input data traffic flow yield of the 13 scenarios, each of scenarios produce estimate of O-D Matrix with variation R-square. R-square of 0,9517 for linear trend line shows the amount of data has a tremendous influence in the decline in the value of R-square for the current level. Inconsiderably the condition of dependence, inconsistency, and the proportion movement make estimate of O-D Matrix has not been seen significantly. Diversity R-square tend to decline also showed an increasing number of traffic flow data obtained and used in the estimation process, will further improve the accuracy of O-D Matrix, but will require considerable resources, expensive, and require substantial time and not efficient

The study found that the optimum number of traffic count data is about 32 traffic count data, or about 76,19% of the total data traffic count (100%). Roads that could be recommended to input data to estimate O-D Matrix traffic count of more effective and efficient based on the study of the road with a large amount of movement of vehicles, roads with a large proportion of the movement of traffic between the zones, and roads are not only through private vehicles but also by public transport.