Thesis Title	A Study of Efficiency of Freight Movement in Bangkok : Area Restrictions of Heavy Trucks
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Abstract

The objective of this thesis was to study the travel time of freight movement in Bangkok when the restriction area of heavy truck will be implemented. Traffic congestion and the increase of truck operations in urban areas are important reasons resulting in the inefficiency of freight movement. Therefore, the restriction area was identified as a way to improve efficiency. Suburban truck terminals will be used as the transfer points between heavy trucks and pick up/delivery trucks.

The procedure of this thesis was divided into 3 parts. First, the demands of freight transport were predicted by a multiple linear regression method. Second, travel time and routes from each area to truck terminal were determined by the all or nothing assignment method. Finally, the measurement of efficiency of freight movement was calculated from summation of the multiplication between demand and travel time of freight transport from each zone to the terminal.

The results indicated that manufacturing goods was the main group of freight using the truck terminals. In urban areas, the travel speed of pick up/delivery trucks was faster than the travel speed of heavy trucks. The restriction area on heavy trucks on the outer ring road of Bangkok can improve the efficiency of freight movement by about 24 percent compared with the present situation. From the results, the restriction area and truck terminals will be a more efficiency method of freight movement in Bangkok.

Keywords: Urban Freight Transport / Efficiency of Freight Movement / Truck Terminal