

ABSTRACT

This report concentrates on estimation of operating costs of 10-wheel truck and tractor & semi-trailer and analyze them with an engineering economic to select the better alternative among two types of truck. Steps in study: Firstly, the study is about transportation system in Thailand, the roles of truck in transportation system, and trend of 10-wheel truck and tractor & semi-trailer requirement in Thailand. Secondly, the study of the factors that affect operating cost of truck. Thirdly, the study of the estimating cost method of TRRL (Transport and Road Research Laboratory) and apply this method to calculate operating cost of truck for Thailand condition. Fourthly, calculate operating cost of 10-wheel truck and tractor & semi-trailer with TRRL's method. Finally, analyze the operating cost of each truck with an engineering economic method, such as Net Present Value (NPV), Equivalent-Uniform-Annual-Worth (EUAW), etc., to select the better alternative.

The result shows that tractor & semi-trailers are more economical than 10-wheel trucks.