ABSTRACT

Shipping of goods by sea using containers is increasing. This is due to the use of containers is considered to be more efficient and effective. However, the advantage of container becomes meaningless if the infrastructure to support the container handling systems does not exist. Small islands with little amount of the commodity and a lack of infrastructures causes the General cargo ships as the main choice for distributing the commodities up to this day. Therefore, the increasing development of container transport without the supporting infrastructure that has yet to be fulfilled for remote islands accommodating the distribution of national logistics, becomes the main reason behind the necessity of the hub port.

This study analyzes the determination model of the hub port as a consolidation center of container and General cargo. This study uses the set-covering models method combined with marine transportation planning, therefore that the obtained output is hub port locations that provide minimum cost of transport.

The results of this study are the location of the port hubs that give the minimum cost of transport which are located in ports in Batam, Lampung, Medan, Palembang, Jakarta, Surabaya, Balikpapan, Banjarmasin, Samarinda, Tarakan, Bitung, Kendari, Luwuk, Makassar, Kalabahi, Maumere, Reo, Dobo, Manokwari, Merauke, Sanana, Serui, Sorong dan Timika.

Keyword: Container, General cargo, Hub port, Minimum Cost of Transport