ABSTRACT

Indonesia faces considerably problem in logistics performance. In 2012, The World Bank published Logistics Performance Index (LPI) report, whilst Indonesia ranked 59th of 155 worldwide surveyed countries. Domestic liner service costs higher than international shipping service, for instance, shipping cost of orange commodity from South Sulawesi to Jakarta is doubled than from Shanghai to Jakarta, despite of its shorter distance. Thus, maritime logistics cost regard as a high-rate.

As an archipelagic country, a model to measure logistics performance with maritime transportation sector concern needs to be developed. This study focuses on quantifying the efficiency and effectiveness of maritime logistics which Data Envelopment Analysis (DEA) and cost-drivers concept are employed. Based on logistics and supply chain management approach, 2 (two) main activities, nodes and links, are considered particularly to determine performance indicators.

According to the measurement model of logistics performance, in this thesis, low level of logistics performance mainly affected by shipping activity (links), only 16% of 187 routes with relatively efficient performance and potentially used as a benchmark for other routes. On the other hand, port activity (nodes), 53% of 51 ports are relatively efficient.

Keywords: measurement model, logistics performance, maritime transportation