ABSTRACT

The competition in the business of shipping is getting stringent along with the growth of new shipping companies. They compete for reaching more customers in order to increase their profit. There is an unfair competition between two shipping companies; PT.A and PT.B, about the shipping route Surabaya-Banjarmasin-Surabaya. The key strategy for winning that competition is the freight rates determination by each company. The Game Theory method is a decision-making method which used in order to frame the situation of competition among the companies. The method can create a situation of fair competition, where the profit margin between PT.A and PT.B is the lowest. The competitive models between both companies are made in ten scenarios; the demand limitation in Surabaya are 100%, 90%, 80%, 70%, 60% from shipping capacity of PT.A and PT.B, and the demand limitations in Banjarmasin are 50%, 40%, 30%, 20%, 10% from shipping capacity of both companies. From each scenario result the best strategy in shipping rates determination. Based on the result, PT. A had dominated the competition on every single condition. It can be done because PT. A had a ship that can be faster and had larger capacity (11.32 knot and 368 TEU) than PT. B ship’s (8 knot and 241 TEU). More than that, PT. A had more value on summary about “treatment to load” which 8.05 and “treatment to customer” which 8.1 than value of PT. B which 6.6 and 7.4 based on customer questionnaire.

Keywords: model, competition, freight rates, shipping companies, game theory