Nowadays, there is a trend to establish new business linkages and alliances within the shipping industry together with customers, suppliers, competitors, consultants, and other companies. A number of studies have attempted to explain this phenomenon occurring in the liner shipping industry using a variety of conceptual and theoretical frameworks. This paper focuses on liner shipping’s strategic alliances and their establishment and transformation within the framework of cooperative and non-cooperative game theory. The concepts developed and improved by Nash, Selten and Harsanyi should be considered as effective and capable tools to analyse motivations, competitive structures, strategies and potential pay-offs in a turbulent liner shipping industry.

Not only a liner shipping company could be regarded as a player in shipping alliance, but also a liner shipping strategic alliance itself could be viewed as a player as well when it competes with other alliances. However, in this paper, we pay more attention to the former model assuming those liner companies are unable to make enforceable contracts through outside parties. The aims of this paper are to

1) indicate the motivations of short-run cooperation among several liner carriers;

2) analyse pros and cons of being members in liner shipping strategic alliances;

3) explain the departure of a player when it faces turbulence and unpredictable shipping circumstances

4) advise ways to contain long-run alliance’s stability by increasing benefits while decreasing drawbacks.

Among those four main points, the differences between short term cooperation and long term alliance are the amounts of sub-games and the potential pay-off in future. Consequently, we set up specific models based on non-cooperative games and repeated games to give those differences clear explanations. The outcome of this paper shall be helpful for those liner shipping carriers who attempt to succeed in the shipping industry with greater efficiency, better customer service and lower cost.