

Engineering Officers of National Vessels in Taiwan

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Abstract

This study estimates the transition probability of engineering officers of national vessels in Taiwan from 1994 to 1998 at different hierarchy levels. An absorbing Markov transition matrix is also constructed to forecast the supply of engineering officers from 1999 to 2001. In addition, the GM(1,1) model of Grey theory is applied to forecast the demand of engineering officers from 1999 to 2001. Moreover, cross analysis is performed to identify the experiment. Results in this study indicate that the annual demand for engineering officers of national vessels exceeds supply annually, and its imbalance is becoming increasingly serious every year. These results provide a valuable reference to pertinent authorities when determining the engineering officers of national vessel policy in Taiwan.

Keywords: Engineering Officers, Markov Model, Hierarchy, Grey Theory, Grey Forecast Model.