Matrix Transformation Technique based Forecast Modeling of Input-Output Table

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Given its importance, recent decades have witnessed an increasing growth in literatures concerning application of input-output tables. However, the problem of too-long interval time and time delay when constructing input-output tables has always existed. In order to improve the timeliness of input-output tables and forecast the structural changes of input-output table, we present an MTT method for serial input-output tables forecasting mainly based on matrix transformation techniques. The method releases the constraints of input-output tables, obtains a series of unconstrained matrices, forecasts the unconstrained matrices based on the law of historical data, and eventually gets forecasted input-output tables through the inverse computation of matrix transformation. An empirical analysis applied on the data provided by Miller and Blair (1985) has demonstrated the merit of MTT.

Key Words: constraints; empirical analysis; forecast; matrix transformation; input-output tables