

Document category : Scopus

Title : A comparison among two composite models (without regression processing) and (with regression processing), applied on Malaysian imports

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Abstract : The current paper reports an empirical study on the use of a composite model for developing a statistical model to predict the value of imports of the crude material in Malaysia. It is a combination of both regression and autocorrelation integrated moving average (ARIMA) models to produce a better forecast. The study reported in this paper mainly aimed at comparing the two composite models: the first model (Without Regression Processing) and the second model (With Regression Processing). The initialization set of the data has 91 data points, starting from first quarter 1991 to third quarter 2013. The general steps followed in comparing the two models were test significance of parameters and the minimum value of the statistical measure of forecast error (Thiel Coefficient) of its forecasting power. The results showed the composite model (With Regression Processing) had better significant and a lower percentage of U-statistics. This implies that the model had a substantially better fit. © 2015 Mohamed A. H. Milad et al.

Subject : Composite model; With regression processing; Without regression processing

Type : Article

Source title : Applied Mathematical Sciences

ISSN : 1312885X

ISBN :

Publisher : Hikari Ltd.

Year issue : 2014

Language : English