

PREEYARAT NARKSUWAN : A COMPARISON ON FORECASTS FROM
LEAST ABSOLUTE VALUE AND ORDINARY LEAST SQUARES METHODS
IN SIMPLE LINEAR REGRESSION EQUATION.

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The objective of the study was to compare error of forecasts from Least absolute value and Ordinary least squares methods in simple linear regression equation. They are compared by using the square root of the mean squared forecast error. The distribution of random errors are Normal distribution $N(0,1)$, Uniform distribution $U(-\sqrt{3}, \sqrt{3})$, Laplace distribution $L(0,1)$, Cauchy distribution $C(0,1)$ and Contaminated Normal distribution $0.85N(0,1)+0.15N(0,25)$. This study used 4 models of independent variable (X), Simple Time Trend, Stochastic Trend, Periodic Trend and AR(1) models, and sample size of 15,30 and 50. Datas are obtained through simulation Mote Carlo technique, repeated 200 times.

The results of this study are as follow:

1. In case of the distribution of random errors having no outliers such as normal and uniform distributions, the ordinary least squares method of estimating parameters has error of forecasts less than the least absolute value method for all models of independent variable (X) and all sample sizes.

2. In case of the distribution of random errors having outliers such as fat-tailed distributions, the least absolute value method has error of forecasts less than the ordinary least squares method for all models of X and all sample sizes.