SALES FORECASTING OF NEW MOTORCYCLE IN SURABAYA SALES AREA USING PANEL REGRESSION

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Abstract
Motorcycle is one of land vehicle that much interested by majority of the Indonesian citizents. One of the most interest brand is Honda. This research aims is to predict sales of every type (cub, matic, and sport) of new motorcycles of all brands and Honda brand in Surabaya sales area using panel regression. The predictor variables are thought to influence is quantity of productive citizent, GDP per capita, HDI, and the rate of economic growth. By using chow test, Hausman, and lagrange multiplier obtained panel regression estimation method. All of the test at level $\alpha = 5\%$ indicates that the response variable $Y_{TC}$, $Y_{HC}$, $Y_{HM}$, $Y_{HS}$ estimated by the fixed effect model, the variable $Y_{TM}$ estimated by random effect models, while the variable $Y_{TS}$ estimated by common effect model. The forecasting is substitute the results of trend analysis or dummy regression of each predictor variable into each regression panel model.

Key word : Sales of new motorcycle, Panel Regression, Trend Analysis.
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