ABSTRACT

COMPARISON OF LINEAR REGRESSION MODELS AND *ARIMA* CASE STUDY FOR FORECASTING *SEO KEYWORD TREND*S WITH HOUSING *KEYWORD TIME SERIES* DATA

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Competition in the real-estate industry is increasingly growing with information technology, one of which is competition for website visibility by utilizing SEO (search engine optimization). This research discusses the comparison of linear regression models and ARIMA in predicting SEO keyword trends, functioning to help the strategic keyword analysis process to increase website visibility with SEO techniques. SEO keyword trends are the number of keyword searches in a certain period of time that provide a trending pattern. or down. In this research, SEO keyword trend recommendations will provide forecasting results in the form of forecast values and up or down trend directions. The data used in this research is data downloaded from Google Trends, a site managed by Google to provide historical data for keyword searches. The process of testing model accuracy for SEO keyword trend recommendations is carried out by calculating the error rate using RMSE and MAPE. The results of testing this model provide good accuracy results with a low error rate, namely RMSE 68.04 and MAPE 6.80% for linear regression and RMSE 4.69 and MAPE 7.80% for ARIMA with ARIMA being a better choice than linear regression and providing prediction results for decreasing trends. for housing SEO keywords

Keyword: real-estate, trend keyword SEO, linear regression, ARIMA, RMSE, MAPE.