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Beta-Based Stock Price Forecasting: Relevance from Selected Indian Sectorial Indices

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Abstract: Beta is a measure of systematic risk that helps investors assess a stock's volatility. This study investigates whether the concept of Beta is an efficient metric to forecast share prices. The Nifty 50 Index has been used as the benchmark for the Indian capital market and as a basis for research. The study examines selected companies across three Indices: Nifty Bank, IT, and FMCG, and validates the model using RMSE, MAE, MAPE, R-squared, standard deviation, average deviation, and graphical representation. The study results indicate that the proposed forecasting model is effective across all selected companies. IDFC First Bank Limited, Federal Bank Limited, and Bank of Baroda have minimal errors, indicating that the proposed model has high accuracy and high explanatory power among the selected companies. This study adds new dimensions to existing forecasting models and Beta in finance, besides the established theory of Beta as a systematic risk indicator.

Keywords: Beta, Share Price Forecasting, Nifty 50, Nifty IT, Nifty FMCG, Nifty Bank

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