**UPI transactions ANALYTICS**

**ABSTRACT**

The research focuses on employing the Prophet library, a robust machine learning tool for time series forecasting, to predict UPI (Unified Payments Interface) transaction trends. This study processes a dataset of daily UPI transactions by converting timestamps into a suitable datetime format and aggregates these into daily sums to reflect overall transaction volumes. The Prophet model is then applied, which adeptly handles inherent seasonal and trend components of transaction data. After training on historical data, the model predicts future transactions over a 90-day horizon. The forecast's effectiveness is quantitatively assessed using Mean Squared Error (MSE) and Mean Absolute Error (MAE), which indicate a high level of predictive accuracy. This suggests that the Prophet model can not only capture the complex patterns in UPI transaction data but also provide actionable insights for financial planning and policy formulation. The successful application of this forecasting approach demonstrates significant potential for enhancing the operational strategies of financial institutions and offers a framework for further research integrating additional economic factors to refine predictive accuracy.