# *ABSTRACT*

*The growth of e-commerce in Indonesia demands businesses to develop data-driven promotional strategies, especially to manage slow-moving products that can negatively impact sales performance. This study aims to analyze historical sales trends in Toko Rumahbayitaz, apply the Prophet time series model to forecast slow-moving product performance, and design discount strategies based on the prediction results. The research addresses the lack of accurate forecasting systems, absence of historical analysis for optimal discount timing, and the need for data-driven promotional mechanisms. Using the Knowledge Discovery in Databases (KDD) framework, Prophet was applied to daily sales data from January 2023 to April 2024 obtained from Shopee Seller Centre. Results show that Prophet effectively identifies weekly and monthly seasonal patterns and delivers accurate forecasts to detect low-demand periods. Discount strategies such as "Midweek Deal" and "Sunday Flash Sale" were designed based on the model's output and demonstrate potential in improving promotional outcomes. In conclusion, integrating the Prophet model into discount planning enables the business to design more relevant, timely, and demand-driven promotions.*



***Keywords****: discount, e-commerce, forecasting, Prophet, sales, Shopee, slow-moving, time series*