SISTEM PERAMALAN PENJUALAN PRODUK SKINCARE FAVORIT MENGGUNAKAN LONG SHORT-TERM MEMORY (LSTM) STUDI KASUS TOKO KAYRABEAUTY

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Abstract
The increasing product demand at Kayrabeauty Store necessitates accurate daily sales forecasting for optimal stock management. This study proposes using the Long Short-Term Memory (LSTM) method to forecast daily sales based on historical data, aiming to reduce the risks of stockouts or overstocking. The results show that the LSTM-based forecasting system can predict the next day's sales with a low error rate. In the scenario with 25 layers, Skintific 5x Ceramide Moisturizer and Wardah UV Shield SPF 30 demonstrated the best performance with the lowest MAE values across daily, weekly, and monthly scenarios, indicating the superiority of these products at lower layer configurations. Conversely, in the 75-layer scenario, The Originote Hyalucera Moisturizer excelled across all temporal scenarios, suggesting that this product is more optimal at higher layer configurations. In the 100-layer scenario, Azarine Sunscreen Gel SPF 45 showed the best performance, confirming its advantage at the highest layer configuration. The forecasting results are integrated into the Kayrabeauty website information system, facilitating inventory management and marketing strategies.

Keywords : *Sales Forecasting, Stock Management, LSTM, Website Application.*