

**Peramalan Penjualan Benih Jagung BISI Menggunakan Metode *Triple Exponential Smoothing* (Studi Kasus: PT XYZ) (Forecasting Sales of BISI Corn Seeds Using the Triple Exponential Smoothing Method (Case Study: PT XYZ).**

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***ABSTRACT***

*PT XYZ, as an agricultural product distributor, faces stock imbalance issues due to the manual and unstructured determination of purchase quantities for BISI 18 corn seeds. This study aims to design and build a web-based sales forecasting information system using the Triple Exponential Smoothing method to optimize the purchase planning process. The system development method applies SDLC Waterfall, while functionality testing uses Black Box Testing. The forecasting computation utilizes secondary data in the form of a 60-month monthly sales history, from January 2020 to December 2024. Decomposition analysis results show that the data has trend and seasonal patterns, where testing proves the Multiplicative TES model is more accurate than the Additive variant. The system's computation produces the most optimal smoothing parameters of  $\alpha = 0.7629$ ,  $\beta = 0.0948$ , and  $\gamma = 1$ . The implementation of the algorithm in the system built using the Laravel framework yields an in-sample MAPE accuracy rate of 12.83%, which falls into the good category. Application feasibility testing proves 100% of the features run according to the scenario without any errors found. In conclusion, this information system has proven effective in automating the processing of large-volume historical data and is capable of accurately presenting a 12-month sales projection, thereby providing a reliable decision-making reference for PT XYZ.*

***Key words:*** forecasting, triple exponential smoothing, sales, corn seeds