

### ***Abstract***

This research uses Vogel's Approximation Method (VAM) and Modified Distribution Method (MODI) to analyze the distribution of PT. XYZ products. QM for Windows Version 5.2 software is used in this research. The results of the analysis using the VAM method show that the optimal delivery requires the delivery of a certain amount of products from various farms to various retail stores. Based on the results of the analysis, there is a reduction in shipping costs by 81.9% from the initial value. The implementation of this transportation model changes the distribution allocation, distribution amount, and total distribution cost. With the implementation of the transportation model, PT. XYZ managed to reduce the shipping cost from Rp516,800.00 to Rp93,364.00. This study concludes that the implementation of the transportation model provides empirical and theoretical benefits as well as economic benefits with new discoveries. However, this study has limitations that need to be considered

*Keywords:* Vogel's Approximation Method (VAM); Modified Distribution Method (MODI); Distribution analysis; Shipping cost reduction; Transportation model implementation

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