

ABSTRACT

This research aims to analyze consumer purchasing patterns in the Shopee Rumahbayitaz online store by applying the FP-Growth algorithm for Market Basket Analysis (MBA) and linear regression to evaluate the influence of time and payment methods on purchase volume. The study utilizes transaction data from 2023 to 2024, which has been cleaned and formatted to Support both analysis methods. FP-Growth results revealed strong product associations, such as between My Piano Playmat and Gift Wrap Paper, with 93.75% confidence and a lift of 47.19. Linear regression was used to identify the significance of time and payment method variables, but the results showed minimal impact on the number of products purchased, with an R^2 of 0.0024. The findings were then implemented in an interactive Streamlit -based application to help the store owner design data-driven bundling and promotion strategies. This research concludes that the FP-Growth algorithm is more relevant for strategic decision-making in product bundling than linear regression, and it can serve as a foundation for developing recommendation features on e-commerce platforms.

Kata Kunci: *Building Product, CRISP-DM, Data mining, E-commerce, FP-Growth, Market Basket Analyis. Regresi Linear, Shopee.*