

UNIVERSITY TEKNOLOGI MARA

**PREDICTING SALES TRENDS FOR SCHOOL
COOPERATIVES USING MARKET BASKET
ANALYSIS**

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IN THE NAME OF ALLAH, THE MOST GRACIOUS, THE MOST MERCIFUL

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ABSTRACT

This study explored applying Market Basket Analysis using the FP-Growth algorithm to boost sales projection and operational proficiency at a school cooperative. It focused on three key problems at SMK Seksyen 3 Bandar Kinrara: manual data administration, lack of forecasting tools, and recurring human mistakes. Historical sales records from the ANGKASA system and spreadsheet files were evaluated employing the CRISP-DM methodology. The FP-Growth algorithm was implemented to discover frequent item sets and purchasing patterns from transactional data. A Power BI dashboard was consequently developed to visualize these patterns and help strategic decision-making. The outcomes demonstrated that predictive analytics could improve customer satisfaction, back effective marketing strategies, and optimize inventory control. The study illustrated that data-driven approaches using FP-Growth could significantly contribute to the operation and sustainability of school cooperatives.

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