Optimization of Purchasing with Sales Analysis Using Association Rule Mining Method (A Case Study of Handari Store)

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ABSTRACT

Generally, business practitioners use daily sales transaction data only to monitor the revenue and profit of their operations. However, as buying and selling activities continue to increase, transaction data also accumulates and is often only used as an archive without being fully utilized. This causes frequent issues, such as running out of desired items due to a lack of attention to inventory management and inadequate use of sales data. Sales transaction data can be leveraged by processing it into new information. One way to analyze sales data is by utilizing data mining. There are many methods in data mining, but the most suitable for sales data is association rule mining. The results of this study show that the system provided 10 rules from a total of 785 transactions in March 2024 using a minimum support of 0.01 and a minimum confidence of 0.06. From these 10 rules, none were found to be invalid, resulting in the system achieving an accuracy of 100%.

Keywords: *Optimization, Data Mining, Association Rule Mining, Apriori, Market Basket Analysis*