ABSTRACT

Referring to the trend of FMCG industry sector data in Indonesia, there has been a decline in the Growth Rate in 2023. The reason behind the decline in the growth rate is explained in a report by Kantar Worldpanel, which states that the decline occurred due to national inflation, which triggered changes in consumer spending patterns. Sakinah Supermarket, as one of the players in the FMCG industry, has experienced a decline in revenue in 2023. One of the causes of this decline is global inflation, which has changed consumer spending patterns. Therefore, Sakinah must create a new promotional strategy based on consumer spending patterns. Referring to previous research, several methods can be used, one of which is using Market Basket Analysis to create a strategy in the form of product bundling. This method is carried out by analyzing consumer shopping patterns on company transaction data using the Data mining process with the apriori and FP-Growth algorithms to find Frequent items and form association rules from the minimum support and confidence values so that it can be known what item combinations will appear as recommendations for marketing strategies, namely product bundling and a comparison of the results of the two algorithms will be carried out to find out which algorithm is more suitable for the Sakinah Supermarket transaction data. The data used in this study has 22,413 rows with 3,634 total transactions recorded from January 2023 to December 2023. Based on the results of data management that has been carried out using the apriori and FP-Growth algorithms, it can be seen that the percentage of support and confidence values produced is higher even though the combination of items that appear is precisely the same as the results obtained using the apriori algorithm. The final results of the data management process show that there are 6 combinations of items that appear with minimum support value parameters of 1% and minimum confidence of 20%, including Seedap Mie and Indomie Inst; Sunlight Laundry Soap and Indomie Inst; Sunlight Laundry Soap and Pepsodent PG; Soklin Softener and Indomie Inst; Laurier Pembantas and Indomie Inst; and Ultramilk UHT and Indomie Inst. All existing combinations also have Lift Ratio parameter results of more than 1, which means the combination is valid and can be used as a recommendation submitted to the Company.

Keywords*: Algoritma Apriori, Data mining, FP-Growth, Market Basket Analysis, Pola Belanja Konsumen, Product Bundling.*